SAN FRANCISCO DEPARTMENT OF CITY PLANNING 100 LARKIN STREET · SAN FRANCISCO CALIFORNIA 94102

DRAFT

ENVIRONMENTAL IMPACT REPORT

Proposed Stonestown Shopping Center
Renovation Project
San Francisco, California

EE 76.74

Review Period

September 10 to October 14, 1976

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CONTENTS

		Page
	List of figures	iii
	Summary	iv
I.	Project description	1
	A. Location	1
	B. Objectives	1
	C. General characteristics	4
	D. Project history and scheduling	10
	E. Relationship to local and regional plans	11
II.	Local and regional environmental setting	13
	A. Geology, soils, seismicity, and hydrology	13
	B. Climate and air quality	14
	C. Transportation	16
	D. Noise	22
	E. Vegetation and wildlife	23
	F. Aesthetics	23
	G. Land use and demography	27
	H. Historic and archaeological resources	31
	I. Community services	32
	J. Energy consumption	35
	K. Economic environment	36
III.	Direct and indirect environmental impacts	39
	A. Geology, soils, seismicity, and hydrology	39
	B. Climate and air quality	39
	C. Transportation	42
	D. Noise	47
	E. Vegetation and wildlife	48
	F. Aesthetics	48
	G. Land use and demography	48
	H. Community services	54
	I. Energy consumption	56
	J. Direct economic impacts during construction	57
	K. Level of business activity and employment generated by the proposed project	59
	L. Fiscal impacts	60
	M. Impact on regional retail activity	62
IV.	Mitigation measures proposed to minimize impacts	64
	A. Increased energy consumption on site	64
	B. Other impacts	65
V.	Adverse environmental effects that could not be avoided if the project were implemented	70

CONTENTS
(Continued)

		Page
VI.	Alternatives	71
	A. No project	71
	B. Use other than as a department store	71
	C. Alternative designs	72
	D. Alternative site plans within Stonestown Shopping Center	77
	E. Realign Winston Drive	80
	F. Depress or elevate Winston Drive	82
VII.	Relationship between short-term uses of the environment and the maintenance of long-term productivity	89
VIII.	Irreversible environmental changes	91
IX.	The growth-inducing impact of the proposed action	92
X.	EIR authors; organizations and people consulted	93
XI.	Distribution list	97
XII.	Bibliography	99
	Appendix A: City Planning Commission Resolution No. 3731	101
	Appendix B: City Planning Commission Resolution No. 5490	109
	Appendix C: Transportation impact report	115

FIGURES

		Page
1.	Site location map	2
2.	Site plan	3
3.	Proposed shopping center plan	5
4.	Department store and garage elevations	6
5.	Department store and garage ground level plan	8
6.	Department store and bridge second level plan	9
7.	Existing traffic conditions	17
8.	Transit systems	19
9.	Typical noise levels	24
10.	Site views	25
11.	Site views	26
12.	Existing land use	28
13.	Zoning map	30
14.	Rendering - looking north from Buckingham Way	49
15.	Rendering - looking west from Winston Drive	50
16.	Rendering - looking east from Winston Drive	51
17.	Electrical consumption	58
18.	Traffic mitigating measures	67
19.	Alternative A	78
20.	Alternative B	79
21.	Alternative C	81
22.	Alternative D	83
23.	Alternative E	84
24.	Alternative F	85
25.	Alternative G	86
26.	Alternative H	88

SUMMARY

The Stonestown Shopping Center Renovation Project would involve demolishing the vacant City of Paris Stonestown building and constructing a Bullock's department store containing about 172,000 gross square feet and an adjacent 670-space parking garage. A pedestrian overpass over Winston Drive about 90 feet wide would connect the store with the 41,000-square-foot Stonestown Mall, which would be enclosed and air conditioned. Some store fronts facing the mall would be moved to provide about 9,000 square feet of additional retail space.

Construction of the proposed project would temporarily increase noise, air pollution, and traffic congestion. During operation of the project, traffic levels on Winston Drive would rise and energy consumption (in the form of electricity) would be increased.

The proposed project would employ about 320 people, would provide about 15,750 person-weeks of construction employment, and would generate about $1.4 million per year in property and sales taxes.

Mitigation measures include an attempt to minimize visual impacts to nearby residences through setback of the department store facade, use of energy-efficient lighting systems, and parking and traffic control and road restriping to increase the traffic capacities of nearby streets.

Alternatives considered include no project, other uses of the site, variations in project size and design, different locations in the shopping center for the store and garage, realignments of Winston Drive, and elevating or depressing Winston Drive.

I. PROJECT DESCRIPTION

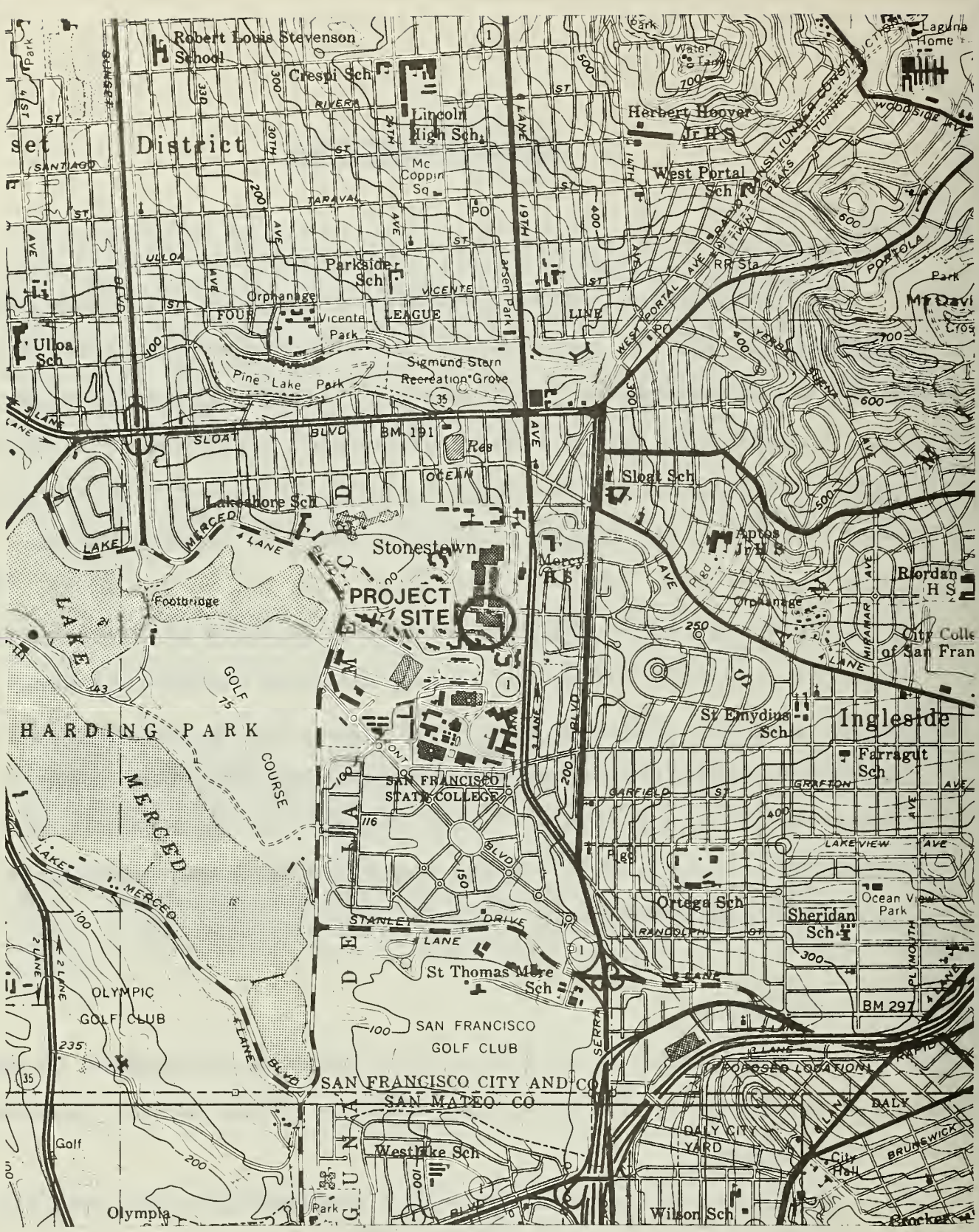
A. LOCATION

The proposed project would be located in the Stonestown Shopping Center, in the Lakeside district of San Francisco (Figure 1). Stonestown Shopping Center is located in San Francisco along Nineteenth Avenue between Eucalyptus Drive and Buckingham Way. Winston Drive intersects the shopping center from east to west. Most of the center is located north of Winston Drive; some tenant space and a large parking area lie to its south. The project would occupy the site of the vacant City of Paris building, at the southwest corner of the shopping center, and the existing mall. The site faces Buckingham Way on the south, is bisected by Winston Drive, and extends along the mall to the Emporium department store (Figure 2, page 3). The project's coordinates are 37°43'40" north and 122°08'35" west, and it is on Assessor's Blocks 7295 and 7296.

B. OBJECTIVES

The stated objectives of the Stoneson Development Corporation in expanding the Stonestown Shopping Center at the proposed location are:

- to replace the currently vacant, nonproductive City of Paris building with a major retail store;



SITE LOCATION MAP

SCALE: 1:24000

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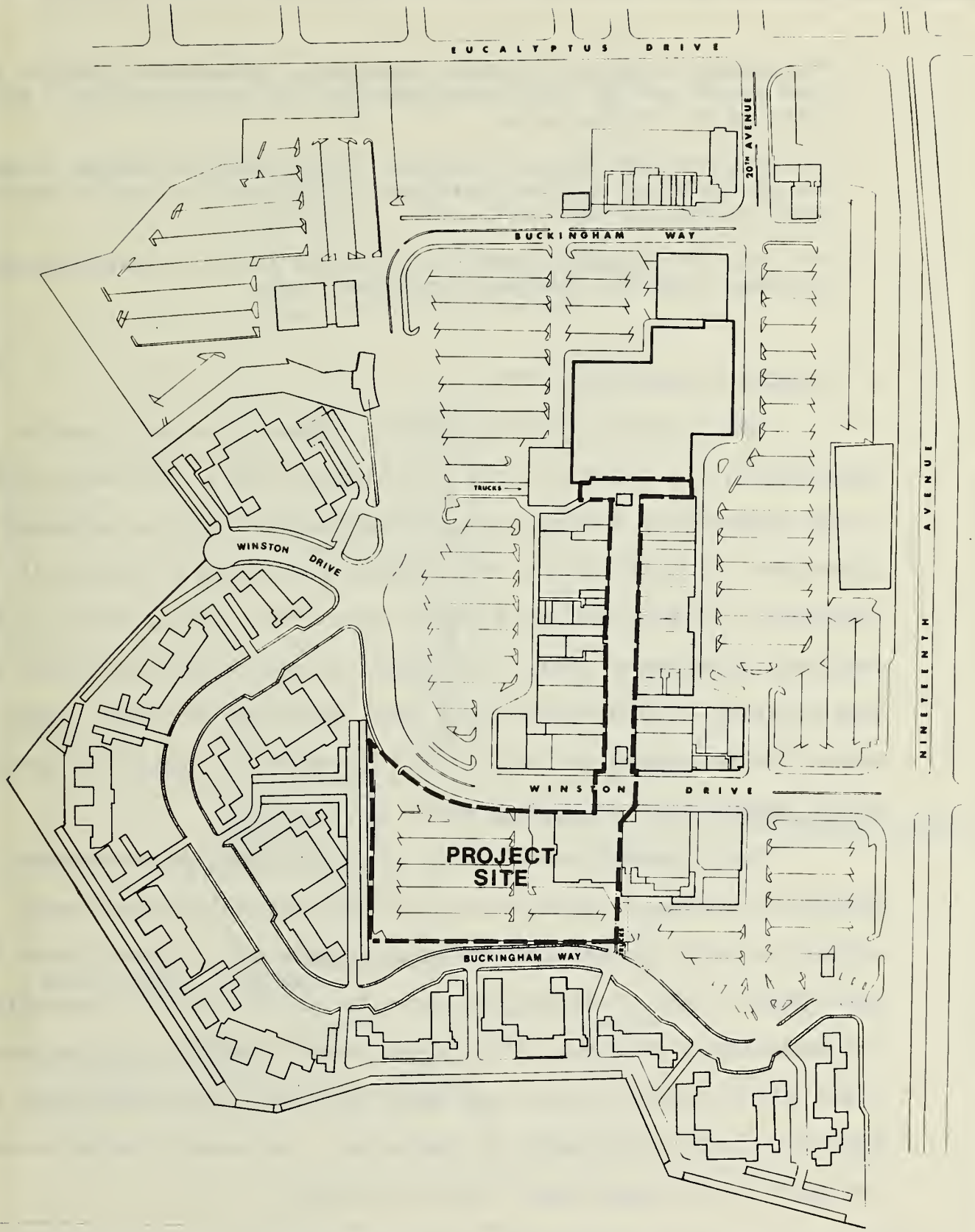
FIGURE 1



SITE PLAN

SCALE: 1" - 300'-0"

STONESON DEVELOPMENT CORP PROPERTIES

N

FIGURE 2

- to balance traffic flow and stimulate pedestrian traffic at the south end of the Stonestown mall by constructing a major attraction at the site;

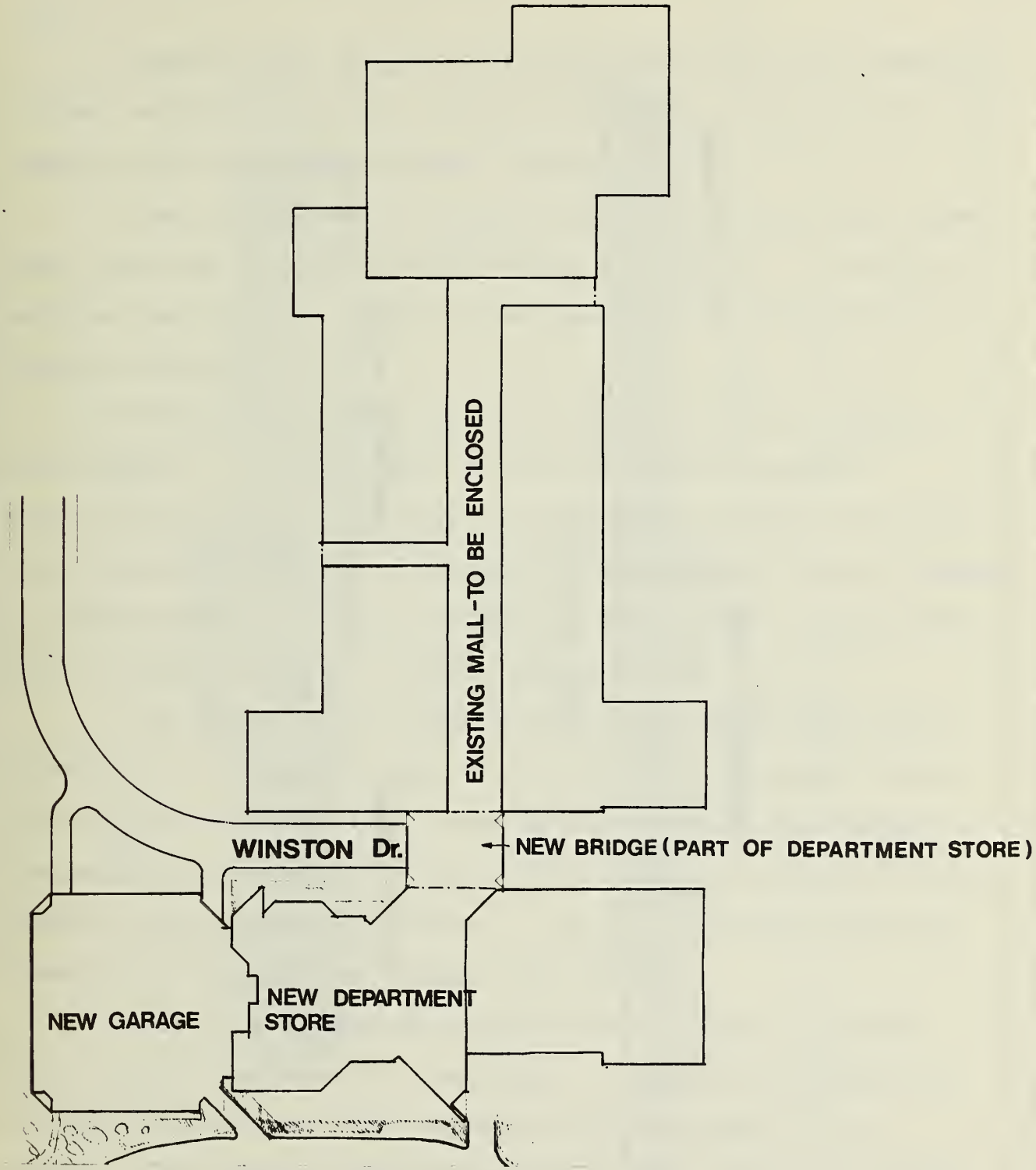
- to improve the economic health of the mall by adding a new major facility at its south end to balance the major department stores at the north end;

- to improve shopping conditions at the mall by providing protection from the frequent wind and fog.

C. GENERAL CHARACTERISTICS

The proposed shopping center expansion would involve demolishing the existing City of Paris building and constructing a new three-story Bullock's department store with an adjacent five-level (including the roof) parking structure (Figure 3). An overpass over Winston Drive would extend the second floor of the proposed department store to connect to the Stonestown Mall, and the existing 41,000-square-foot mall would be enclosed. Some store fronts facing the mall would be moved to create an additional 9,000 square feet of retail space.

The proposed store would abut the existing Stonestown Market on the east; provision of direct access between these stores is being considered (Figure 4, page 6). Gross square footage (gsf) of new construction would be about 172,000, including the pedestrian overpass. The store would rise two stories above grade along Winston Drive and three stories along Buckingham Way because of the topography of the site. The upper stories would be set back from ground-level building limits.



PROPOSED SHOPPING CENTER PLAN

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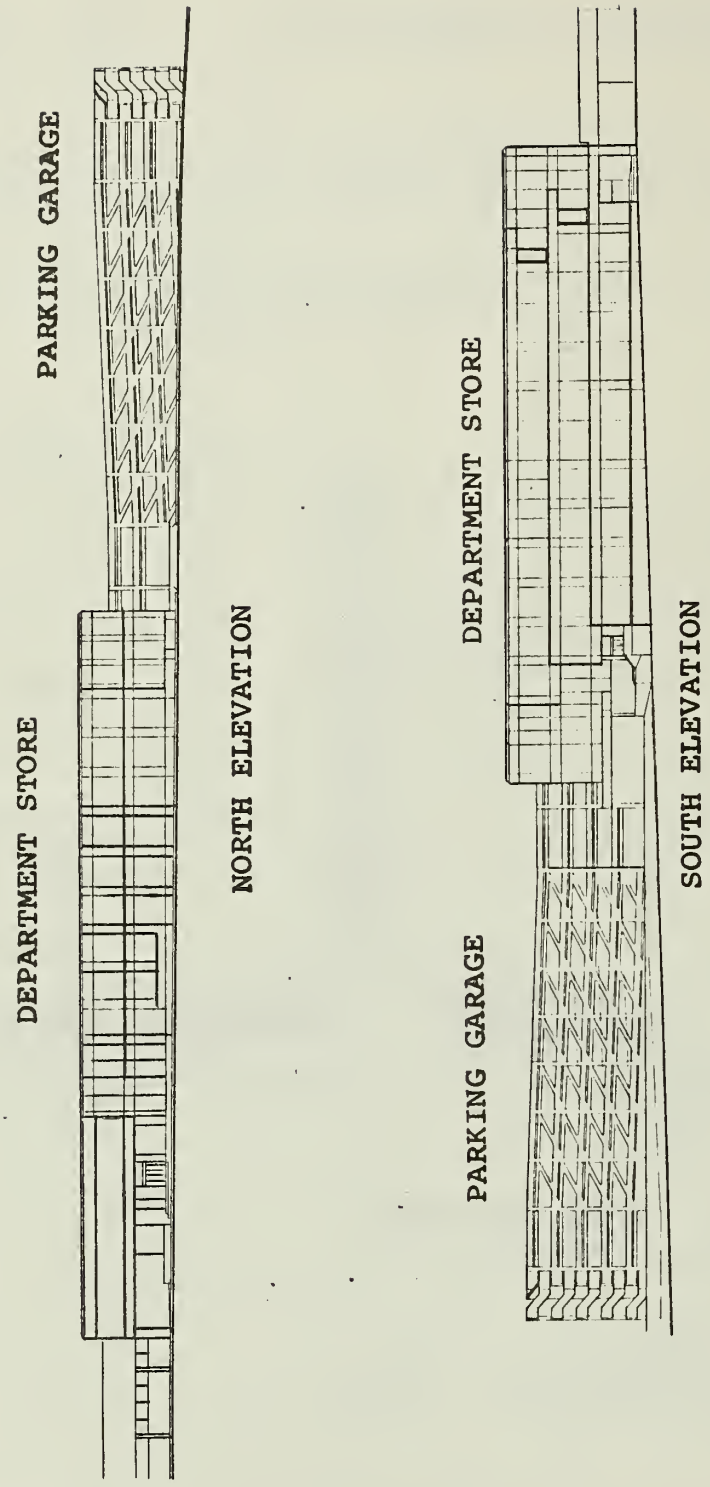
FIGURE 3



DEPARTMENT STORE AND GARAGE ELEVATIONS

SCALE: 1/64"=1'-0"

FIGURE 4

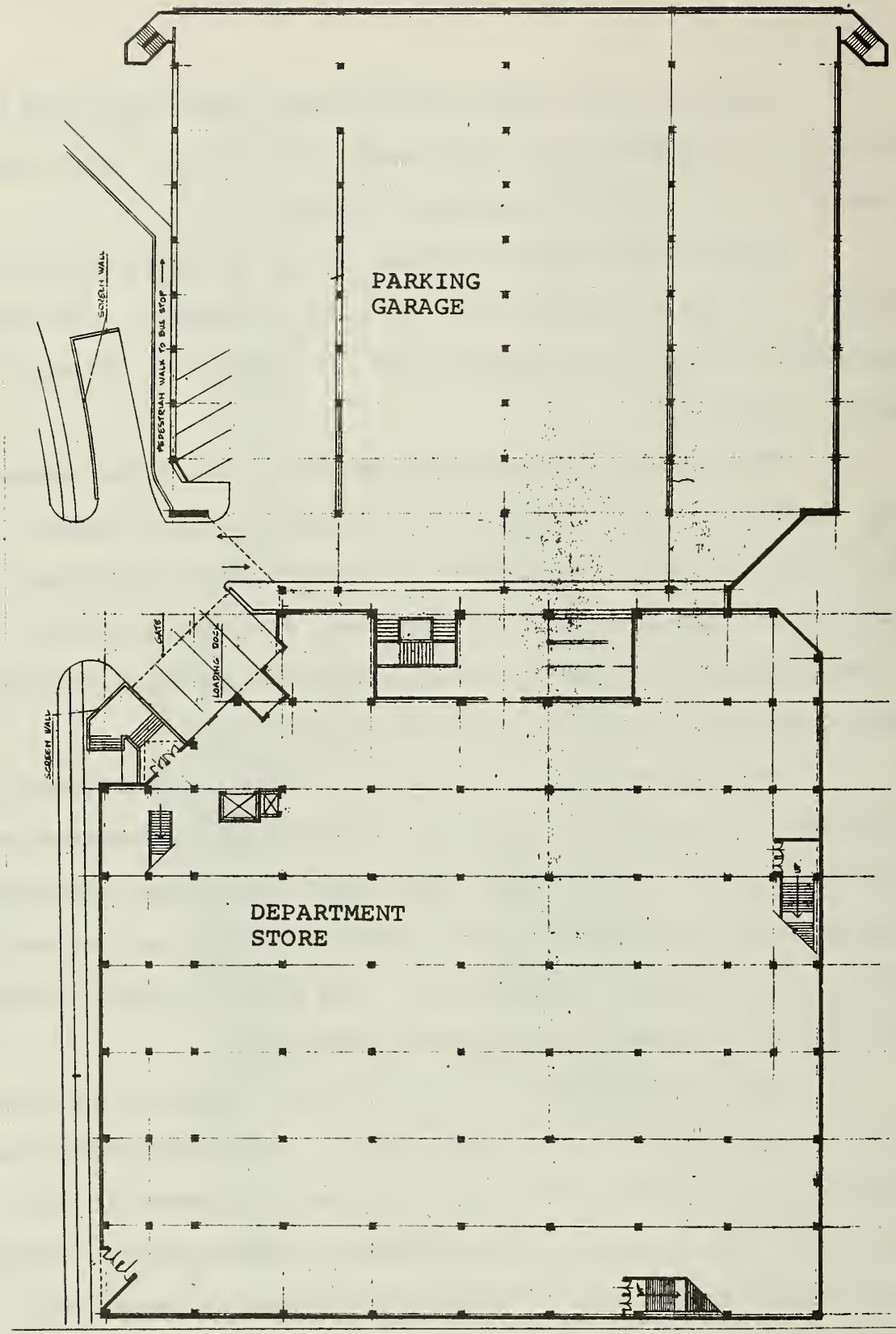
Access to the store would be provided along both Buckingham Way and Winston Drive, and each floor of the store would also connect with the parking garage (Figure 5).

The overpass would provide access to the store via escalator from the Stonestown Mall (Figure 6, page 9). It would be enclosed and would be 93 feet wide; its span over Winston Drive would be 80 feet.

The parking garage would provide 670 parking spaces, a net increase of 330 over the 340 existing parking spaces. The proposed garage would have a sloping-floor design and would have entrances/exits on Buckingham Way and Winston Drive. Access to Buckingham Way would be provided at the garage's bottom floor and to Winston Drive at its east and west ends.

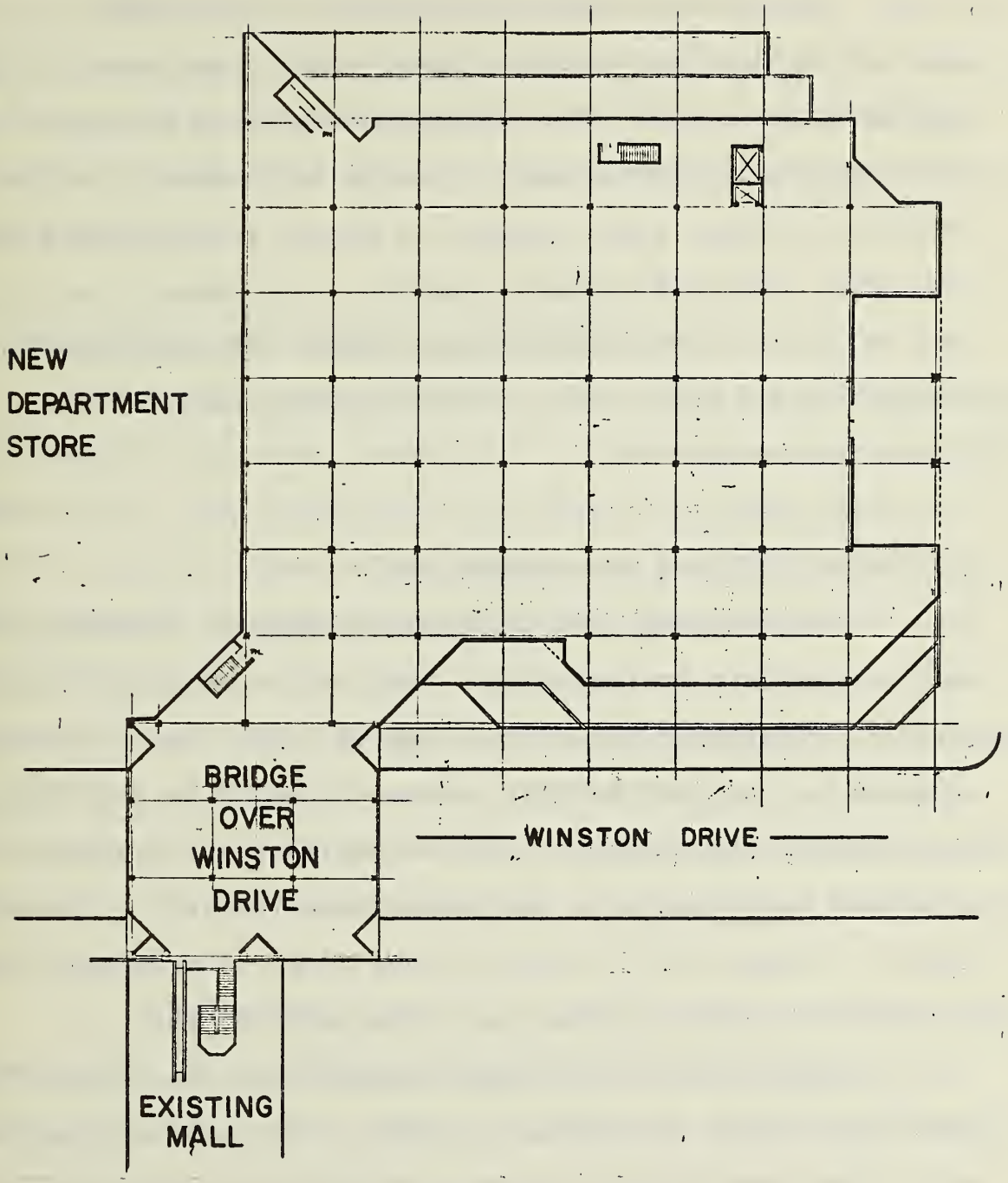
The project site is owned by Stoneson Development Corporation. Current plans call for leasing the department store site to Bullock's, who would then build the store and overpass. The parking structure would be jointly financed by Bullock's and Stoneson Development Corporation. The mall enclosure would be financed by Stoneson Development Corporation.

Costs are estimated at about $9.53 million, of which $2.53 million would be for the garage. Costs for enclosure of the mall and related store expansion are estimated at $2.0 million. The project would permanently employ about 320 people and would provide about 15,750 person-weeks of temporary construction employment.



Department Store and Garage Ground Level Plan

FIGURE 5



Department Store and Bridge Second Level Plan

SCALE: 1/64" = 1'-0"

N

FIGURE 6

The parking garage exterior would be precast concrete in light colors, and the department store exterior would be reddish-brown brick. The mall enclosure would be higher than the buildings along the mall. Design is currently in the condeptual stage, hence details on design and materials are not available. The mall would be skylit, with about 10 to 12 percent of the roof surface in clear glass. The configuration of the mall would vary, since it would become narrower where store fronts were moved out.

D. PROJECT HISTORY AND SCHEDULING

The original building and the adjacent Stonestown Market on the site were constructed in 1952 and occupied by the Butler Brothers Department Store from 1952 to 1960. The structure was expanded and altered in 1960 and was occupied by the City of Paris until 1971, when the City of Paris ceased business. The structure was taken on a short-term lease in 1972 by Liberty House. In April 1974, Liberty House moved to downtown San Francisco and the building has since been vacant.

Construction permit applications for the proposed structures were filed on December 19, 1975. Two separate applications were filed, one for the department store and bridge structure and another for the parking garage. No construction permit application has been filed for the mall enclosure and expansion of existing stores as of September 10, 1976.

Construction of the department store, garage, and overpass is expected to take about 15 months, two months for demolition and site grading and the remainder for construction. No construction schedule has been set for enclosing the mall and moving the store fronts.

E. RELATIONSHIP TO LOCAL AND REGIONAL PLANS

Stonestown Shopping Center was originally developed under City Planning Commission Resolution 3721, adopted March 16, 1950 (Appendix A). The stipulations of this resolution have been modified several times since. On January 25, 1962, Resolution 5490 (Appendix B) authorized additional commercial floor area. A parking structure and retail building were proposed at that time for the southwest corner of the shopping center. A two-story, 30,000-square-foot building was proposed for the parking area west of the City of Paris building. An adjacent one-story parking garage of 40,000 square feet was to extend from Winston Drive to Buckingham Way.

The uses proposed for the site are similar to those indicated in the 1962 resolution, although they would involve an intensification of use. Removal of the City of Paris building, construction of a pedestrian overpass over Winston Drive, and enclosure of the mall are not indicated in the 1962 resolution. City Planning Commission approval of a new Conditional Use Permit for the shopping center would be necessary for the proposed project to be implemented.

Other possible future projects near the site include construction of a restaurant of 5,000 to 9,000 square feet in the shopping center. These plans are independent of the proposed project.

The project site lies within a C-2 (Community Business) zoning district, as stated in the City Planning Code.[1] The height limit for the site is 40 feet.

The project would require the lease or sale of the City's air rights over Winston Drive. This action would require the approval of the San Francisco Board of Supervisors.

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[1]San Francisco municipal code, Part II, Chapter II, City planning code, Section 210.3, July 1, 1974

II. LOCAL AND REGIONAL ENVIRONMENTAL SETTING

A. GEOLOGY, SOILS, SEISMICITY, AND HYDROLOGY

The project site lies at an elevation of about 160 feet above mean sea level on a southwest-facing slope southwest of Mt. Davidson and about half a mile due east of Lake Merced.

The soils of the site are classified as Colma formation.[1] These are marine deposits consisting of crumbly, fine to medium sand containing a few beds of sandy silt, clay, and gravel.[2] The Colma formation sands overlie Franciscan formation sandstones and shales.

The active[3] San Andreas Fault lies about three miles southwest of the site. The area is classified as having a "very strong"[4] intensity of ground shaking in the event of a major

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[1]M. G. Bonilla, "Preliminary geologic map of the San Francisco South quadrangle and part of the Hunters Point quadrangle, California," U.S. Department of the Interior, Geological Survey Miscellaneous Field Studies Map MF-311, 1971.

[2]California Division of Mines and Geology, Geologic atlas of California, San Francisco, 1969.

[3]An active fault is one along which movement has occurred within the last 10,000 years.

[4]The intensity of ground shaking would badly crack masonry and cause lurching in frame buildings, with occasional collapse.

earthquake.[1] Moreover, conditions are probably present for liquefaction[2] of the unconsolidated sandy soil during a major earthquake.

The project area is urbanized. Runoff enters the street storm sewer system, is collected into a trunk sewer, together with sanitary sewage, and passes into the Richmond-Sunset treatment plant. From there it is eventually discharged into the Pacific Ocean through an outfall at Fort Funston.

B. CLIMATE AND AIR QUALITY

1. Climate

The climate of San Francisco is dominated by the sea breeze characteristic of marine climates. Because of this steady stream of marine air, there are few extremes of heat or cold. Temperatures exceed 90 degrees on an average of once a year and drop below freezing less than once a year. The warmest month is September, with an average daily maximum of 69 degrees; the coolest is January, with an average daily maximum of 56 degrees.

Winds in San Francisco are generally from a westerly direction and are persistent from May to August. During the

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[1]John A. Blume and Associates, Engineers, "Seismic safety investigation", San Francisco, June 1974.

[2]Earthquake-induced transformation of a stable granular material, such as soil, to a fluid-like state, similar to quicksand.

rainy season (October to April), however, the strongest winds flow from the south, as well as from the west and northwest.

The project site is exposed to the ocean sea breeze and is windy most of the year. Because of its proximity to the Pacific Ocean, the frequency of low clouds, fog, and drizzle at the site is probably higher than in most areas of San Francisco.

2. Air Quality

San Francisco's persistent summer winds and its upwind position with respect to major pollutant sources combine to give the city possibly the cleanest air in the Bay Area. Air pollutants generated in San Francisco are carried elsewhere in the air basin by the prevailing winds.

In 1974 the Federal carbon monoxide standard of 9 parts per million (eight-hour average) was exceeded on one day, in October; the Federal photochemical oxidant standard of 0.08 part per million (one-hour average) was exceeded on two days, in June; and the California nitrogen dioxide standard of 0.25 part per million (one-hour average) was not exceeded.[1]

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[1]California Air Resources Board, California Air Quality Data, Vol. VI, Nos. 1-4, 1974.

C. TRANSPORTATION

This portion of the report is a summary of more detailed information contained in the Transportation Impact Report, Appendix C.

1. Traffic (Figure 7)

The major streets carrying traffic to/from Stonestown are Nineteenth Avenue, Winston Drive, and, to a lesser extent, Eucalyptus Drive and Lake Merced Boulevard, which intersects Winston Drive west of the center.

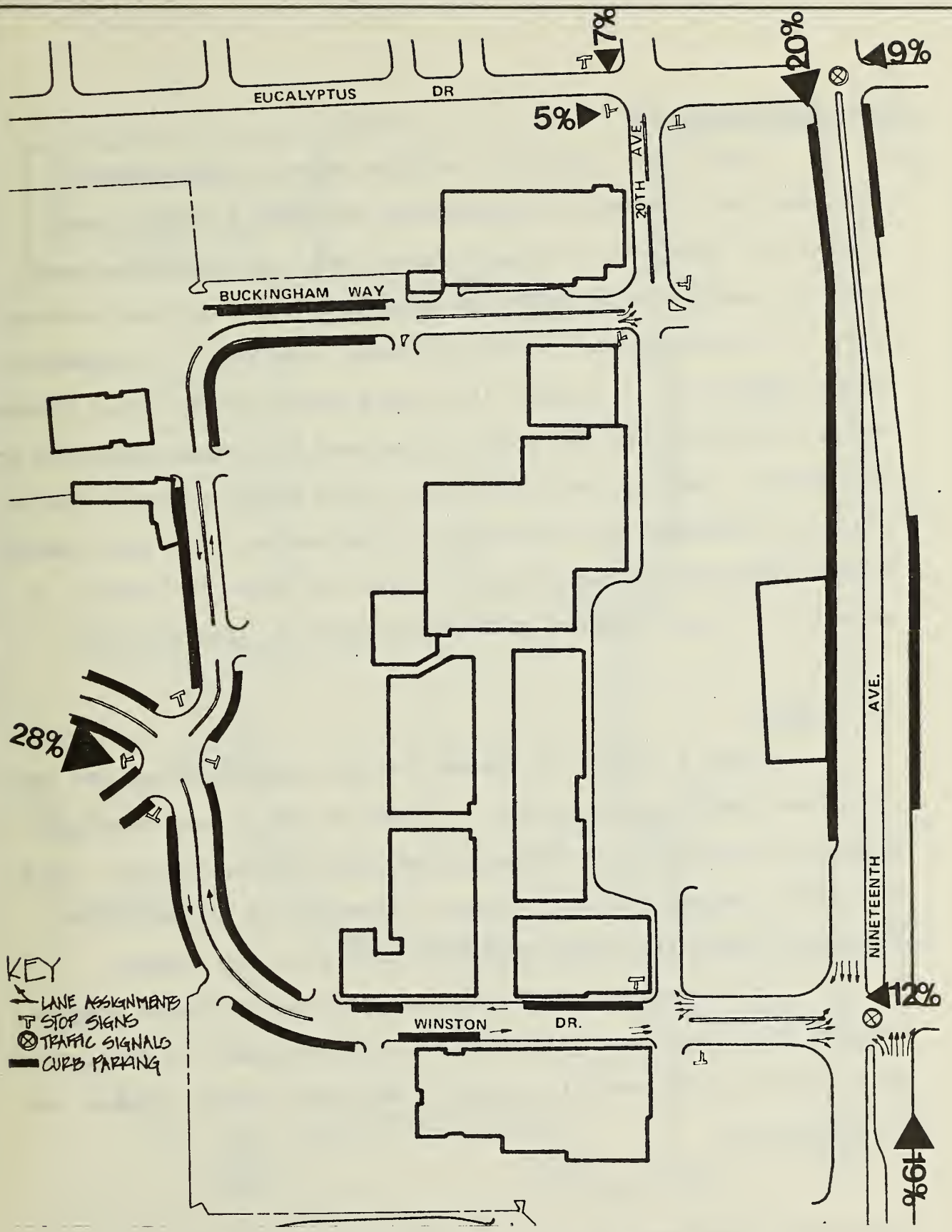
The Transportation Element of the San Francisco Comprehensive Plan identifies major thoroughfares[1] near Stonestown Shopping Center. The only adjacent major thoroughfare is Nineteenth Avenue. Others in its vicinity are Junipero Serra Boulevard, Ocean Avenue (east of Nineteenth Avenue), Sloat Boulevard, Lake Merced Boulevard, and Brotherhood Way. There are no secondary thoroughfares[2] near the center, and the nearest recreational street[3] is John Muir Drive, west of Lake Merced. The nearest freeway is the Southern Freeway (I-280), about a mile and a half south of Stonestown.

---

[1]Crosstown thoroughfares whose primary function is to link districts within the city and to distribute traffic from and to the freeways.

[2]Primarily intradistrict routes serving as collectors for the major thoroughfares.

[3]A street whose major function is to provide for slow pleasure drives, bicycling, and pedestrian use; more highly valued for recreational use than for traffic movement.



EXISTING TRAFFIC CONDITIONS
DIRECTION OF APPROACH

FIGURE 7

2. Parking Supply

Some 2,400 off-street parking spaces are currently provided for customers of Stonestown Shopping Center. These spaces are free with no time restrictions. An additional 640 parking spaces are provided for employees and long-term parkers west of Buckingham Way in the northwest section of the development. There are also about 160 curb parking spaces along Winston Drive and Buckingham Way that can be used by either employees or customers. These three areas total 3,240 parking spaces available for employees and customers of the center. The peak parking demand observed at Stonestown is 2,200, or about 90 percent of capacity, on the Saturday after Thanksgiving, 1973.

3. Transit

Figure 8 shows the routes for the transit lines now serving Stonestown Shopping Center. Lines 18 and 28 use Twentieth Avenue and have stops immediately adjacent to the stores. Line 70 and 72 traverse Winston Drive. Lines 17 and 91 and the M Streetcar line all use Nineteenth Avenue past the center.

The Transportation Element of the San Francisco Comprehensive Plan designates Nineteenth Avenue adjacent to the center a as a transit preferential street.[1] No other nearby streets are so designated.

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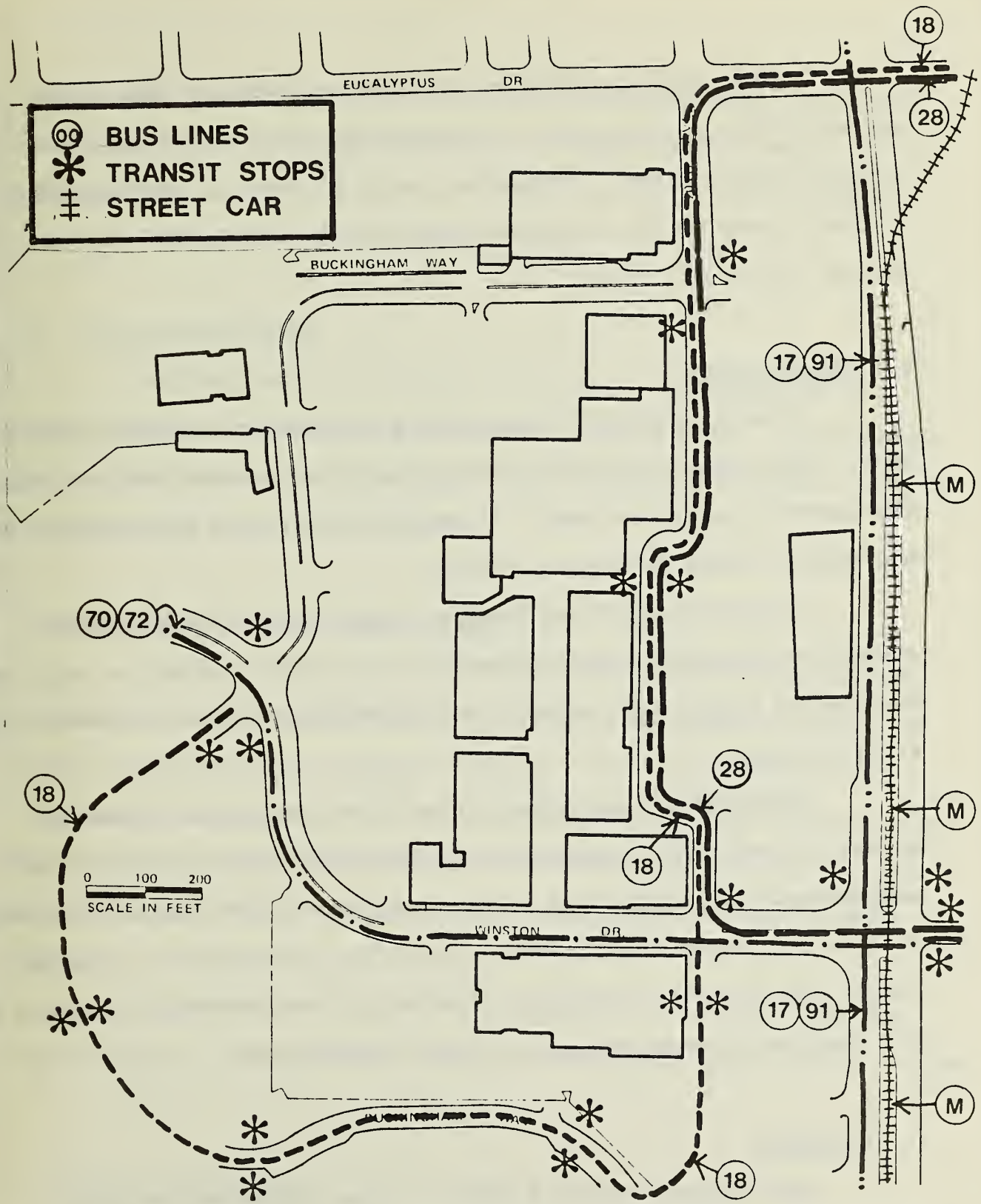
[1]Streets where priority is given to transit vehicles when conflicts with auto traffic occur.



TRANSIT SYSTEMS

FIGURE 8

About eight percent of the people entering the center arrive by bus or streetcar. Considering that 11 percent of all arrivals are on foot, Stonestown, with 19 percent non-automobile arrivals, may be the most non-auto-oriented outlying shopping center in the Bay Area.

4. Pedestrians

Eleven percent of the people entering Stonestown arrive by foot. The major directions of approach for pedestrians are from the north, south, and east. From the north, most pedestrians enter the center along Twentieth Avenue.

A heavy pedestrian demand to and from the east concentrates at Winston Drive because of the traffic signal to help cross Nineteenth Avenue and because of the concentration of transit stops at this point.

Pedestrian approaches to and from the south primarily relate to both San Francisco State University and the high- and medium-density residential areas along the south side of the center. Much of the pedestrian travel to and from the south is oriented toward the Stonestown Market, located in the southwest quadrant of the Twentieth Avenue-Winston Drive intersection.

5. Bicycles

The Transportation Element of the Comprehensive Plan defines a bike route system for San Francisco. None of the

streets in or adjacent to the center are designated as bicycle routes. The primary bicycle approach to/from the center would probably be along Winston Drive from the west, connecting to the Lake Merced Boulevard bike routes.

6. Service Vehicles

Stonestown truck-loading activity takes place in a truck tunnel underneath the shopping center mall. Trucks may enter the tunnel from Buckingham Way, either on the west side or on the south side of the center.

7. Recent or Planned Improvements

In late 1974 the City of San Francisco instituted dual left-turn lanes for northbound traffic on Nineteenth Avenue to enter the Stonestown Shopping Center. This improvement has increased the capacity of the intersection and has reduced delays for traffic entering the center. Another recent change is the installation of a four-way stop at Buckingham Way and Winston Drive.

The Traffic Engineering Division of the San Francisco Department of Public Works does not anticipate any roadway changes

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[1]William Marconi and Richard Evans, Traffic Engineering Division, San Francisco Department of Public Works, personal interview, March 1, 1976.

in the Stonestown vicinity; transit changes involve the recently-installed bus line (Line 70) and the possible elimination of the Line 28 loop serving Stonestown.

8. Problem Areas

Some locations adjoining and within the shopping center currently experience traffic congestion. This congestion has two causes: first, traffic facing stop signs tries to turn onto streets that are not controlled by stop signs; second, pedestrian movements force traffic to stop until crosswalks clear. Intersections with the greatest congestion are:

- Twentieth Avenue-Eucalyptus Drive;
- Twentieth Avenue-Buckingham Way;
- Twentieth Avenue-Winston Drive.

The other area that now experiences some congestion is along Winston Drive at the Stonestown Mall main pedestrian crossing. This crossing connects the two portions of the shopping center, and the pedestrian demand across the street at this point is very heavy.

D. NOISE

The major source of noise on the site is traffic at the Winston Drive-Twentieth Avenue intersection. Peak noise levels are associated with bus and truck passages on Winston Drive; background levels are maintained by more distant traffic. The southern portion of the site and the Stonestown Mall are screened

from traffic on Winston Drive by buildings and are thus considerably quieter than the western area between Winston Drive and Buckingham Way.

Measurements made on the site at noon on a weekday showed a noise level of 62 dBA.[1,2] Noise levels associated with common activities are shown in Figure 9.

E. VEGETATION AND WILDLIFE

Most of the site is paved or developed; vegetation consists of landscaping flowers, shrubs, and trees. The only animals that use the site are insects and birds that visit or inhabit landscaped areas. Common urban microorganisms are assumed to inhabit the soil.

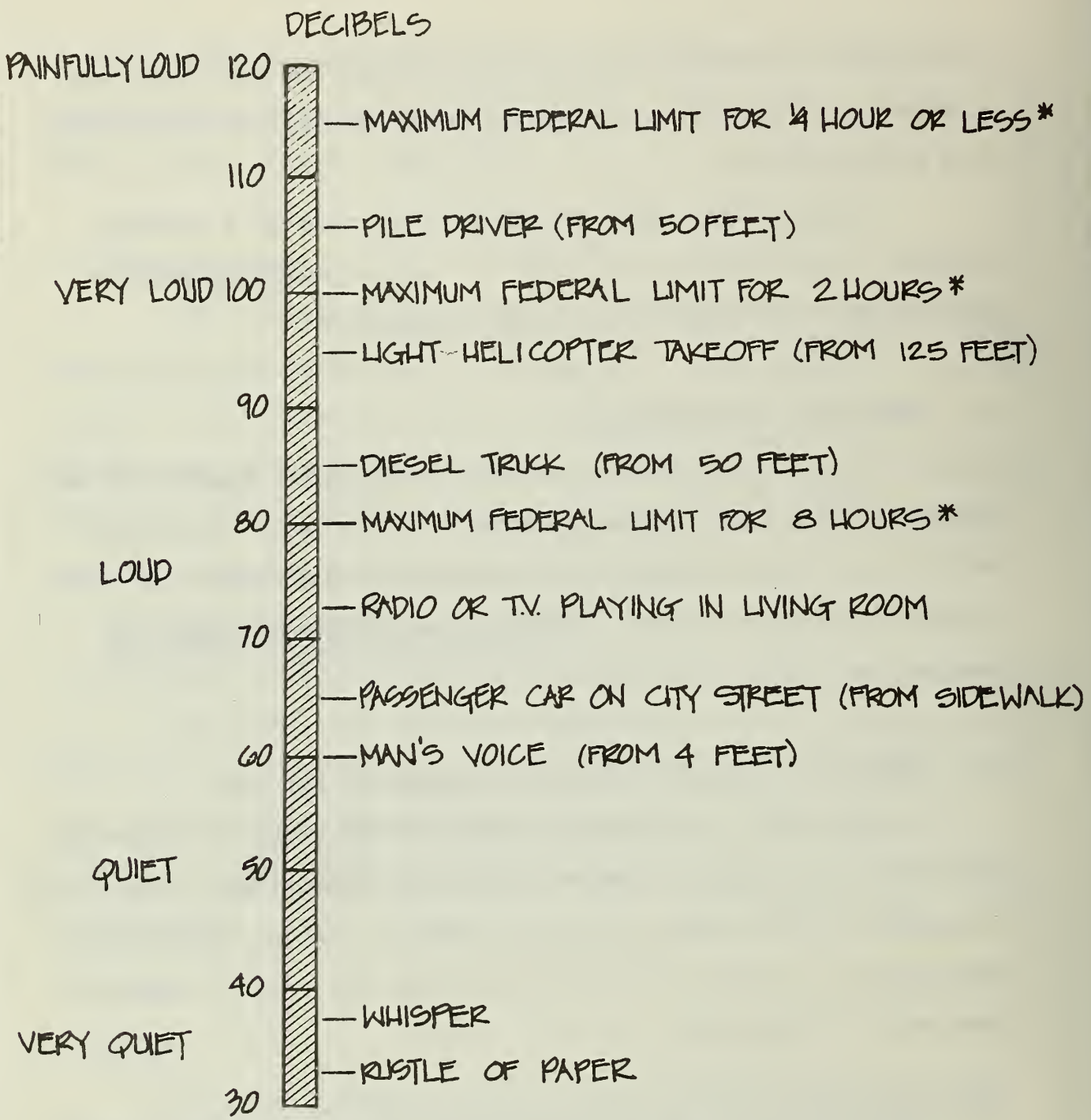
F. AESTHETICS (Figures 10 and 11, pages 25 and 26)

The site is an integral part of the block of buildings that form the shopping center complex at Stonestown. Relatively in scale with the other building shapes in height and profile, the old City of Paris building fits into the general suburban character of the area.

---

[1]The dBA is a unit of sound energy on a logarithmic scale weighted to correspond approximately to human perception of sound at commonly-encountered urban noise levels.

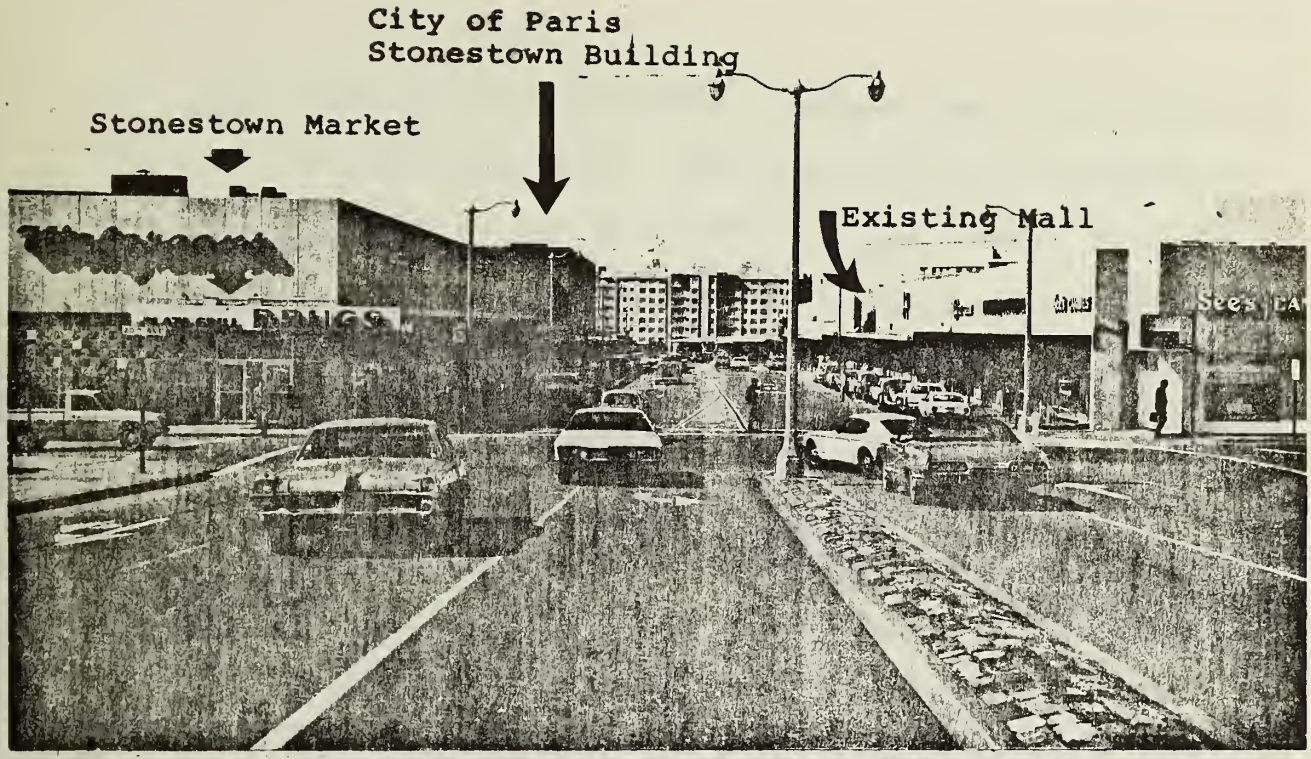
[2]The measurements were made in accordance with San Francisco municipal code, Part II, Chapter VIII, Section 1, Article 29, Noise ordinance, Sections 2901-2902.



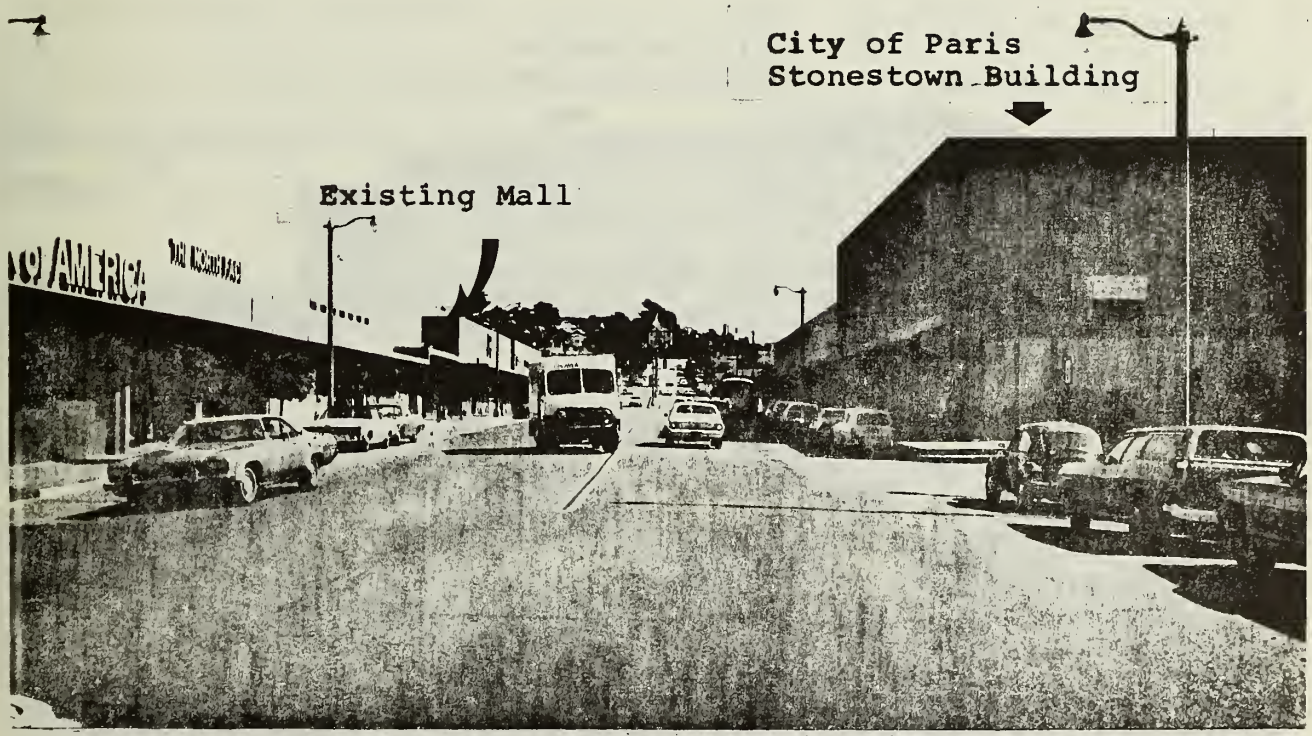
*REGULATIONS PROMULGATED UNDER THE AUTHORITY OF THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970, SECTION 1910.95, OCCUPATIONAL NOISE EXPOSURE, FEDERAL REGISTER, VOL. 36, NO. 105, MAY 29, 1971, PAGE 10518.

Typical Noise Levels

FIGURE 9



A. Project site looking west from Winston Drive

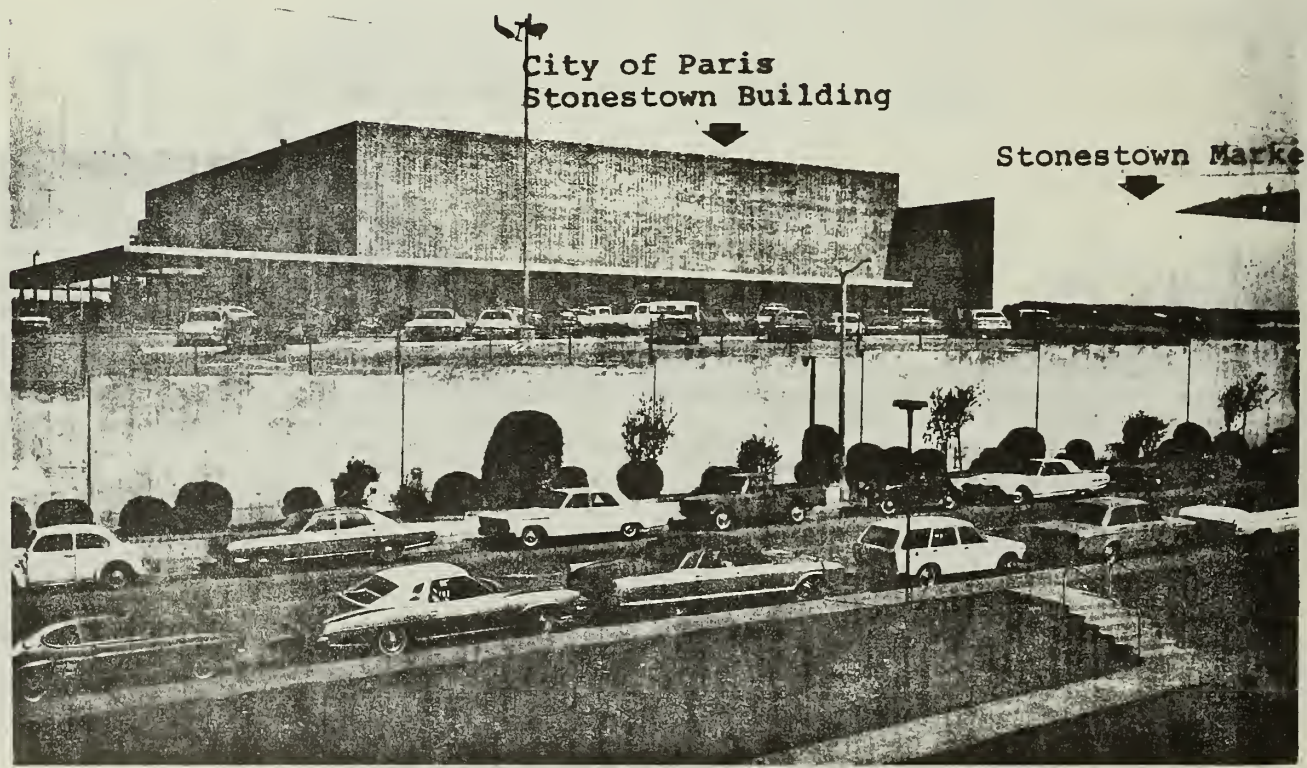


B. Project site looking east from Winston Drive

Site Views

FIGURE 10

A. Project site looking east from parking lot



B. Project site looking north across Buckingham Way

Site Views

FIGURE 11

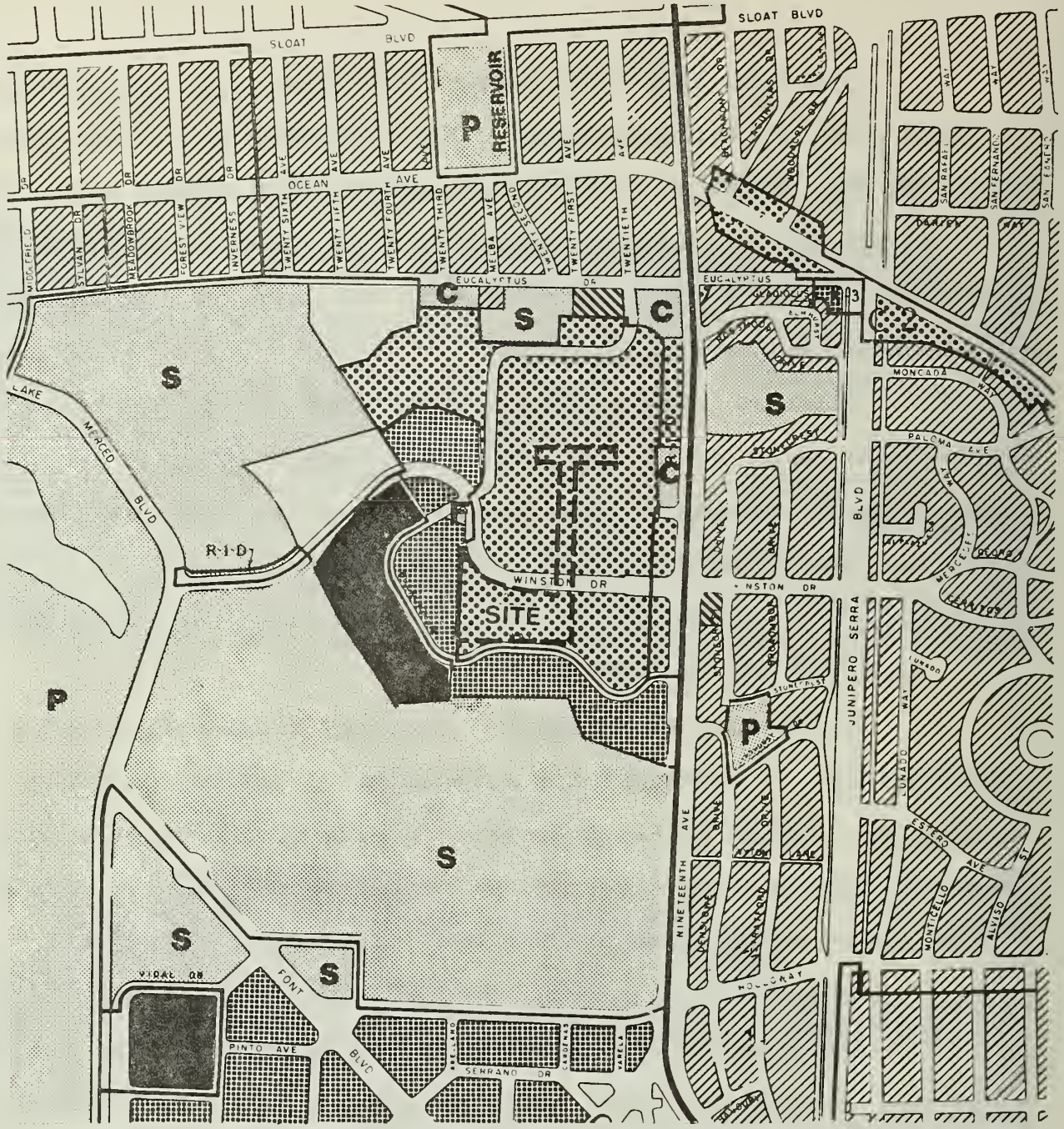
The base land form originally sloped down from Winston Drive south to Buckingham Way. The retaining wall along Buckingham Way, constructed for the parking areas above, forms an intermediate step in the transition from shopping-commercial activity above at mall level down to the lawns of the garden apartments along Buckingham Way.

From the site there are long views out to the south and west, the views north and east being blocked at grade level by buildings. Because of the open parking areas there are views to the south from Winston Drive southbound.

G. LAND USE AND DEMOGRAPHY

Stonestown is a regional facility serving residential communities in southwest San Francisco. It is the only major shopping complex in San Francisco outside of the downtown district, and provides alternative shopping opportunities for an area where travel time to downtown is one of the longest in San Francisco.

Land use in adjoining areas is characterized by residential and institutional uses (see Figure 12). Single-family residential communities are located north and east of Stonestown. Nineteenth Avenue, a six-lane arterial, serves as a divider between the project site and the single-family residences to its east. A community shopping area is located about three blocks east of the shopping center along Ocean Avenue. South and west of the site is an apartment neighborhood owned by the project



- SINGLE-FAMILY RESIDENTIAL
- MEDIUM-DENSITY APARTMENTS
- HIGH-DENSITY APARTMENTS
- COMMERCIAL
- INSTITUTIONAL - PUBLIC/PRIVATE

- S SCHOOLS
- C CHURCHES
- P PARKS
- F FIRE STATION
- VACANT

EXISTING LAND USE

SCALE: 1" = 800'

N

FIGURE 12

sponsor, containing 323 units of garden apartments and 360 units in several apartment towers. The San Francisco State University campus lies beyond the apartment neighborhood.

The site of the proposed department store is currently occupied by a vacant two-story, 64,000-gsf building on Winston Drive abutting a supermarket to the east. A 340-space parking lot is situated west and south of the building.

The project site, along with the entire shopping center, is zoned C-2. The area surrounding the site is zoned for public uses and medium- and high-density residential to the west and south, and predominantly single-family residential to the north and east (see Figure 13).

San Francisco's population in 1970 was 715,600, three percent lower than in 1960.[1,2] Current projections by the California Department of Finance indicate that population is expected to decline to 661,000 by 1980.[3] The San Francisco Department of City Planning projection for the same year is 710,000, however, a decrease of about 5,000.

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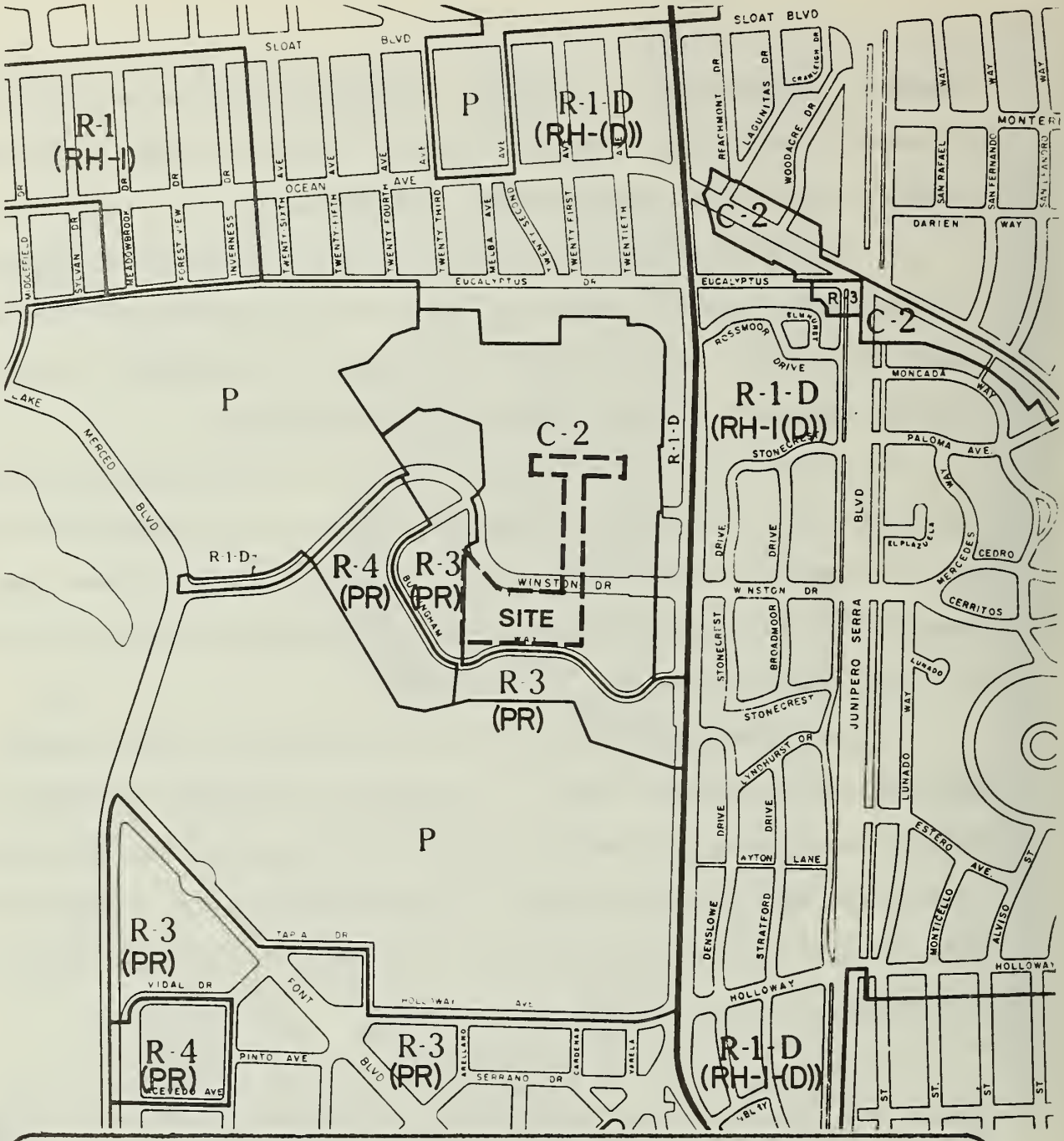
[1]U.S. Department of Commerce, Bureau of the Census, 1960 census of population and housing, Final Report PHC(1)-137, Census tracts, San Francisco-Oakland Standard Metropolitan Statistical Area (Washington, D. C.: Government Printing Office, 1962).

[2]Idem, 1970 census of population and housing, Final Report PHC(1)-189, Census tracts, San Francisco-Oakland Standard Metropolitan Statistical Area (Washington, D. C.: Government Printing Office, April 1972).

[3]California Department of Finance, Population projections for California counties, 1975-2020, Report 74 P-2 (Sacramento, June 1974). This is the E-0 projection, which assumes a declining fertility rate and no net in-migration.



R-1-D - ONE-FAMILY RESIDENTIAL DETACHED DWELLINGS

R-1 - ONE-FAMILY RESIDENTIAL DWELLING

R-3 - LOW-MEDIUM DENSITY MULTIPLE RESIDENTIAL DWELLING

R-4 - HIGH DENSITY MULTIPLE RESIDENTIAL DWELLING

C-2 - COMMUNITY BUSINESS

P - PUBLIC USE

(Proposed Residential Zoning Classification in Parentheses)

ZONING MAP

N

FIGURE 13

The project site is located in the Department of City Planning's Community Planning District 17 (Ocean View, Merced, and Ingleside). As an example of neighborhood characteristics, the following data refer to the Ingleside portion. Ingleside's population declined from 56,400 to 53,900 between 1960 and 1970. Total number of households and average household size decreased during this period. In 1970, 60 percent of the residents were white, 23 percent Black, and 11 percent Latin. Mean family income in 1969 was $16,100; the city-wide average was $12,500.[1]

H. HISTORIC AND ARCHAEOLOGICAL RESOURCES

A survey of archaeological site files showed that there are no known archaeological sites in the immediate vicinity of the proposed project.[2] The San Francisco Landmarks Preservation Advisory Board has stated that it is unaware of any existing historical landmarks in the immediate vicinity of the site and that it is considered unlikely that any past events would result in the declaration of a historic landmark or site of historical interest in this area in the future.[3]

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[1]U.S. Department of Commerce, 1960 census of population and housing, Census tracts; and Idem, 1970 census of population and housing, Census tracts.

[2]Miley Holman, Adan E. Treganza Anthropology Museum, letter to Environmental Impact Planning Corporation, February 25, 1976, on file at the San Francisco Department of City Planning.

[3]Edward N. Michael, Landmarks Preservation Advisory Board, letter to Environmental Impact Planning Corporation, February 24, 1976, on file at the San Francisco Department of City Planning.

I. COMMUNITY SERVICES

1. Water

The project site lies within the service area of the San Francisco Water Department.

Water is supplied to San Francisco from three sources, the largest being O'Shaughnessy Dam in northern Yosemite. Three hundred million gallons per day (300 mgd) are available from this source alone. An additional maximum 50 mgd can be drawn from surface waters in San Mateo, Santa Clara, and Alameda Counties and underground in Alameda County.

San Francisco's current consumption rate, based on a 12-month average day, is 100 mgd.[1]

2. Wastewater

San Francisco's domestic, industrial, and storm runoff wastewater is collected in a combined sewer system and treated at one of three sewage-treatment plants. The Richmond-Sunset Water Pollution Control Plant, located near Lincoln Way in Golden Gate Park, serves the project area.[2]

The Richmond-Sunset plant treats about 20 percent of San Francisco's dry-weather wastewater. Its maximum hydraulic capacity is set at 70 mgd, and average dry-weather flow rates are about 26 mgd.

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[1]Alfred Suen, Associate Civil Engineer, Resources and Planning Division, San Francisco Water Department, telephone conversation September 3, 1976.

[2]California State Water Resources Control Board, Assessment report on City and County of San Francisco water pollution control program, November 1975.

In dry weather all of the city's wastewater is collected and treated at the appropriate plant. When more than 0.02 inch per hour of rain falls, the storm runoff exceeds the system's treatment capacity of 340 million gallons per day. This occurs about 80 times a year; total annual duration is about 210 hours. The plants treat 30 percent of the stormwater runoff in addition to all of the dry-weather flow. Release of the untreated portion of the combined storm and sanitary flows results in the deposition of bacteria, grease, and untreated human waste along the shore-line. These overflows are responsible for adverse water-quality conditions that render the city's beaches unfit for human water-contact activities from October to April every year.[1]

Under the weight of several Cease-and-Desist Orders issued by the Regional Water Quality Control Board, San Francisco has developed a Master Plan for expanding treatment facilities which, when implemented, would provide secondary treatment for dry-weather flows and advanced primary treatment for wet-weather flows exceeding the secondary treatment capacity. It would also limit storm overflows to about one to four per year. Implementation is expected to take twenty years.[2] Interim improvements to the

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[1] California State Water Resources Control Board, Assessment report on City and County of San Francisco water pollution control program, November 1975.

[2] Ibid.

Richmond-Sunset plant will include dechlorination and sediment- and sludge-handling facilities, to be completed within the next two years.[1]

3. Solid Wastes

The Sunset Scavenger Corporation's service area includes the project site. Solid wastes are first taken to the San Francisco transfer station and from there to a sanitary landfill in Mountain View, which has a life expectancy of about eight years.[2]

Sunset Scavenger is currently collaborating with Pacific Gas and Electric Company on studies of pyrolysis, an energy-recovery system whereby wastes are burned at extremely high temperatures, producing methane. It is possible that by the time the Mountain View Landfill has reached its capacity a pyrolysis system will be ready for use in San Francisco. If not, a new sanitary landfill site in San Mateo County is being considered.[3]

4. Fire Protection

The project site is under the protection of the San Francisco Fire Department. Units from Stations 19, 40, and 15 respond

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[1]Arthur Brandow, Division of Sanitary Engineering, San Francisco Department of Public Works, telephone conversation February 23, 1976.

[2]Dino Queirolo, Vice President, Sunset Scavenger Corporation, telephone conversation, February 24, 1976.

[3]John Moscone, President, Golden Gate Disposal Company, telephone conversation, September 8, 1976.

to fire and other emergency calls. The water supply for fire fighting in the area is adequate. There is a street fire alarm box at Winston Drive and Stonestown Mall.[1]

5. Police Services

The project site is in the San Francisco Police Department's Taraval District, with headquarters at 24th Avenue and Taraval Street. Stonestown Shopping Center is private property and is patrolled by the Stonestown Security Department. The force consists of three officers and is responsible for traffic control, parking, and security. The San Francisco Police Department is called in when arrests are made or when accidents involve bodily injury.[2]

J. ENERGY CONSUMPTION

Since the closing of the City of Paris, there has been no energy consumption on the site of the proposed department store and parking garage other than nighttime lighting of the parking lot. Along the mall, incandescent electric lighting is provided at night. The main lighting system is on for 12 hours a day. The lights illuminating ornamental areas such as trees and planters are on from 4½ to 6 hours daily. Lighting electrical usage is about 285 kilowatt-hours daily, or about 8,650 kilowatt-hours per month.

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[1]Chief Robert E. Rose, San Francisco Fire Department, letter to Environmental Impact Planning Corporation March 10, 1976, on file at the San Francisco Department of City Planning.

[2]Gene Orr, Chief Security Officer, Stonestown Security Department, personal interview April 1, 1976.

K. ECONOMIC ENVIRONMENT

Three main factors affect the level of retail activity: 1) population size and income; 2) commuters and visitors and their expenditure patterns; and 3) quality of specialized retail activities. Of these, the first is the primary factor affecting Stonestown, since nonresident activity in the area is not substantial and Stonestown is not a specialized retail facility.

Census data for the Ingleside and Outer Sunset Planning Districts indicate that their populations declined slightly between 1960 and 1970.[1] A study of commercial and industrial characteristics and trends in San Francisco prepared for the Department of City Planning[2] indicates that past increases in retail sales in San Francisco are due primarily to increased demand by nonresidents. This in turn has accounted for some increases in retail employment in the northeast part of the city, while a decline has occurred in the western residential areas.

Between 1960 and 1969, Alameda and San Francisco Counties were the only Bay Area counties registering a decline in their share of the area's retail sales. During this period, San Francisco County's retail sales dropped from the largest to the third largest

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[1]U.S. Department of Commerce, 1960 and 1970 censuses of population and housing, Census tracts.

[2]Arthur D. Little, Inc., Commercial and industrial activity in San Francisco: present characteristics and future trends, June 1975, pp. II-5, IV-26 and 27.

in the Bay Area. The development of large suburban regional shopping centers, with major full-line department stores as a nucleus, has been cited as a cause of the shift in shopping patterns.[1]

Projections of employment, space, and land requirements for the retail trade industry for 1985 have been developed for areas generally east and west of Van Ness Avenue. Between 1973 and 1985, retail employment in the western section of San Francisco is expected to increase by 550. Total floor space and land requirements are expected to increase by 330,000 square feet and 7.5 acres, respectively.[2]

With 701,340 square feet of active building space, Stonestown Shopping Center currently employs about 1,330 retail workers and has a sales volume of $65.4 million (1975). Based on 1976 tax rates, these sales generate a total sales tax receipt of $4.25 million, of which $3.27 million is State sales tax, $654,000 is City/County sales tax, and $327,000 is allocated to the Bay Area Rapid Transit District. Sales volume for the existing shops in the center is expected to grow from $65.4 million in 1975 to $80 million in 1980.[3]

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[1]Security Pacific National Bank, San Francisco Bay Area report, April 1971.

[2]Arthur D. Little, Inc., Commercial and industrial activity in San Francisco, p. IV-37.

[3]Arthur Schumacher, Stoneson Development Corporation, telephone conversation March 4, 1976.

The site of the proposed store and garage has a 1976 assessed valuation of $380,695. Based on the 1976 property tax rate of $11.50 per $100, it generates property taxes of $43,780. Since the building on this property is vacant, the site's primary economic function is to provide parking for the Stonestown Market and the shops on the mall.

III. DIRECT AND INDIRECT ENVIRONMENTAL IMPACTS

A. GEOLOGY, SOILS, SEISMICITY, AND HYDROLOGY

The proposed department store and parking garage would require excavation of about fifteen feet of soil for their lower levels. No soils survey of the site has been conducted. Because of the limited load-bearing capacity of the sandy soil of the area, spread footings[1] would be used as the foundation for the two buildings.

The proposed project would be located in an area of seismic hazard, as is all of San Francisco.

The site is paved over and fully impervious; therefore, no change would occur to affect local hydrologic conditions if the proposed project were implemented.

B. CLIMATE AND AIR QUALITY

The store and garage would increase shadowed areas along Winston Drive during all seasons. The elevated connector would create shadowed areas and would be expected to increase channeling of winds along Winston Drive, resulting in lowered comfort for pedestrians. Within the enclosed mall, reduction of winds and elimination of rainfall would generally increase pedestrian comfort.

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[1]Steel-reinforced concrete pads used to support a structure and spread its load over a larger surface area.

A short-term air quality impact of the proposed project would be increased dust in the air during construction. During demolition of the existing structure, grading, and excavation, the area's persistent winds would carry dust into adjacent areas, causing an occasional nuisance to pedestrians and soiling exposed surfaces such as auto exteriors. There are no known hazardous substances, such as asbestos insulation, within the existing structure.

The project would not directly emit pollutants. Indirect impacts would be due to energy usage and vehicular traffic.

The project itself would use electricity only. Its electrical demand would result in an increase in combustion products from fossil-fueled electric power generation elsewhere.

By inducing traffic, the project would indirectly increase pollutant emissions. About four thousand daily trips would be generated by the project, resulting in an increase in vehicle miles traveled of less than 20,000 (based on an average trip length of five miles).

On the local scale, carbon monoxide is the most important pollutant. An analysis of curbside carbon monoxide levels for the Nineteenth Avenue-Winston Drive intersection was conducted for the peak one-hour traffic period (5 to 6 p.m.) and the peak eight-hour traffic period (11 a.m. to 7 p.m.), corresponding to the averaging times of the Federal standards for carbon monoxide. Traffic information was taken from the Transportation Impact

Report (Appendix C). Curbside concentrations from both roads were superimposed, using the methodology developed by the Bay Area Air Pollution Control District.[1] Average vehicle speed was assumed to be 20 mph, and emission factors for the 1976 vehicle mix were used.

The analysis showed that curbside concentrations are currently 35 and 55 percent of the Federal one- and eight-hour standards. With the addition of project traffic, these percentages would increase to 37 and 59 percent of the standards, respectively, under identical adverse meteorological conditions. Concentrations drop off rapidly with distance from the intersection or from either roadway; thus it is unlikely that any residences or other sensitive receptors near the site would have carbon monoxide exposures exceeding either standards, whether the project were built or not.

Within the parking garage, concentrations of certain air pollutants are expected to exceed ambient levels. An analysis of probable levels of carbon monoxide within the garage under adverse meteorological conditions (a ½-meter-per-second wind) showed that peak one-hour and eight-hour average concentrations

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[1]Bay Area Air Pollution Control District, Guidelines for air quality impact analysis of projects, Technical Services Division Information Bulletin, San Francisco, June 1, 1975.

would reach only 25 and 20 percent, respectively, of the ambient air quality standards.[1]

C. TRANSPORTATION (see also Appendix C)

Impacts on traffic and transportation would result from increased trip activity generated by the addition of retail facilities at Stonestown. This increased trip activity would involve additional automobile, pedestrian, transit, and service vehicle travel.

1. Traffic

The proposed department store would generate an additional 3,950 trips per day to/from Stonestown. Of this total, 370 new trips would be generated in the 4:30-5:30 p.m. peak traffic period.

The increase in traffic associated with the store would affect the three signalized intersections closest to the shopping center. Capacity calculations for existing conditions, expanded shopping center conditions, and future conditions were conducted for these three locations.

At the Nineteenth Avenue-Eucalyptus Drive and Lake Merced Boulevard-Winston Drive intersections, the levels of

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[1]Based on estimated peak one- and eight-hour parking turnover and assuming one minute of idling time per vehicle and a travel distance of one-tenth mile within the structure at 10 miles per hour.

service[1] would not change with the project. The level of service at the Winston Drive-Nineteenth Avenue intersection would deteriorate slightly from C to a level between C and D.

To evaluate the longer-range impact of the proposed project, traffic growth in the Stonestown vicinity was projected to 1985 and capacity calculations were performed on 1985 conditions. If traffic in the Stonestown area were to continue to grow at a rate of 1 to 1.5 percent per year, the levels of service of all three intersections would deteriorate, but in no case would they drop below D.

In addition to generating new traffic, the project would redistribute traffic. The addition of a new department store could change the directions of approach to the center because the new store could draw from a larger or slightly different trade area. The 3,950 new trips would represent 15 percent of the existing 25,200 daily trips.

Travel demand on Buckingham Way between the new parking garage and Nineteenth Avenue would increase because of the entrance/exit from Buckingham Way to the lower level of the proposed garage, which would serve about a third of the 670-car

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[1]Level of service is a quantitiative measure of a number of factors, including speed and travel time, traffic interruption, freedom to maneuver, safety, driving comfort, and convenience and operating cost. Levels range from A, denoting free flow with low volumes and high speed, to F, with jammed conditions and long delays. See Table 8, Appendix C, p. 142.

garage. Because of left-turn prohibitions to/from Nineteenth Avenue, the Buckingham Way garage access point would probably be used more as an exit than as an entrance.

2. Parking Supply

Peak parking data indicate that 2,000 to 2,200 spaces in Stonestown are now used on peak days of the year. An increase of 330 parking spaces to accommodate the new department store should result in a total parking supply that would remain adequate to meet even peak parking demand.

In shopping centers an attempt is made to distribute parking supply according to the demand within the center. Acceptable walking distances in a shopping center parking lot are normally considered to be about 200 to 250 feet;[1] thus as much prime customer parking as possible should be located within this radius of the proposed store. Existing unused parking is located beyond the 250-foot radius.

A parking ratio of 5 spaces per 1,000 square feet of gross leasable area (GLA) is normally considered standard;[2] however, the relatively high percentages of transit/pedestrian arrival,

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[1]David K. Witheford, Zoning, parking and traffic, (Saugatuck, Connecticut: The Eno Foundation, 1972).

[2]Urban Land Institute, Parking requirements for shopping centers, Technical Bulletin No. 53, 1965.

coupled with the lower project traffic generation rates, indicate that 4 spaces per 1,000 square feet of GLA would be an appropriate parking ratio for the proposed store. Based on the above considerations, the project would require about 720 parking spaces within 200 to 250 feet. There are about 120 surface parking spaces within 200 feet of the department store; thus a total of 790 spaces would be provided within 250 feet.

3. Transit

The expanded center is expected to attract an increased number of transit riders to Stonestown. The buses now serving Stonestown are not filled to capacity when they reach it; therefore, the increase in ridership to/from the shopping center could be accommodated. These buses are filled to capacity, however, when they are closer to the center of the city.

Since this location is not a major loading point for the buses, transit ridership data by line are not available. Precise estimation of additional transit demand for each line is not possible.

4. Pedestrians

The project would result in increased pedestrian trips to/from Stonestown because nearby residents would be expected to visit the center more often with the increase in available merchandise. The directional flows of pedestrian traffic entering the Stonestown Shopping Center would remain the same.

A pedestrian-vehicle conflict point in the shopping center would continue to be the crossing from the mall at Winston Drive west of Twentieth Avenue. Recent counts show that the crossing demand at this point is 650 pedestrians per hour during the mid-afternoon peak shopping period and 310 pedestrians per hour during the 4:30-5:30 p.m. peak traffic hour. If the proposed department store generated as much pedestrian traffic as the Emporium mall entrance, another 970 pedestrians per hour would be added to this crosswalk. Thus a total crossing demand of 1,620 pedestrians per hour during midday and 1,280 pedestrians per hour during the evening peak traffic hour would be exerted if the proposed project were implemented.

All of the peak-hour pedestrian crossings would be made with a property timed signal. Consideration of the cycle time that pedestrians would accept and the length of the resultant traffic queue along Winston Drive shows that, if a 25- to 30-second pedestrian crossing were allowed, traffic would back up into the Winston Drive-Twentieth Avenue intersection unless a second traffic lane were provided.

5. Service Vehicles

The proposed project would generate 30 additional truck trips per day. Six would be to stores on the mall and would use the trunk tunnel underneath the mall. The remaining 24 trips to Bullock's would use the loading dock located along Buckingham Way.

D. NOISE

The greatest generation of noise associated with the proposed project would take place during construction. Demolition of the existing structure, earth moving, and grading and construction activities would elevate noise levels near the site. The loudest activities would be pavement breaking and earth moving, which would generate peak noise levels of about 90 dBA at 50 feet.[1] Peak noise would be audible at locations with direct line of sight as far as 800 feet from the site. Construction activities would probably annoy residents of apartments across Buckingham Way.

Permanent impacts on the noise environment would be due to project traffic and mechanical equipment. Traffic noise levels in the project area would be increased less than 1 dBA. Within the parking garage, noise levels would be high near auto traffic. Noise from within this structure would be audible during store hours in adjacent pedestrian areas along Winston Drive and Buckingham Way.

Truck noise at the loading dock would affect residents along Buckingham Way.

Noise from mechanical equipment on the roof of the structure would not be audible anywhere near the site.

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[1]U.S. Environmental Protection Agency, Noise from construction equipment and operation, building equipment, and home appliances December 31, 1971.

E. VEGETATION AND WILDLIFE

The project would remove existing landscaped vegetation, eliminating some habitat for urban animals such as birds.

F. AESTHETICS (Figures 14, 15, and 16)

The department store would be larger and about 20 feet higher than most existing structures at Stonestown and would stand out in the complex of buildings. The garage would be unprecedented in the neighborhood and would change its character in scale and concept.

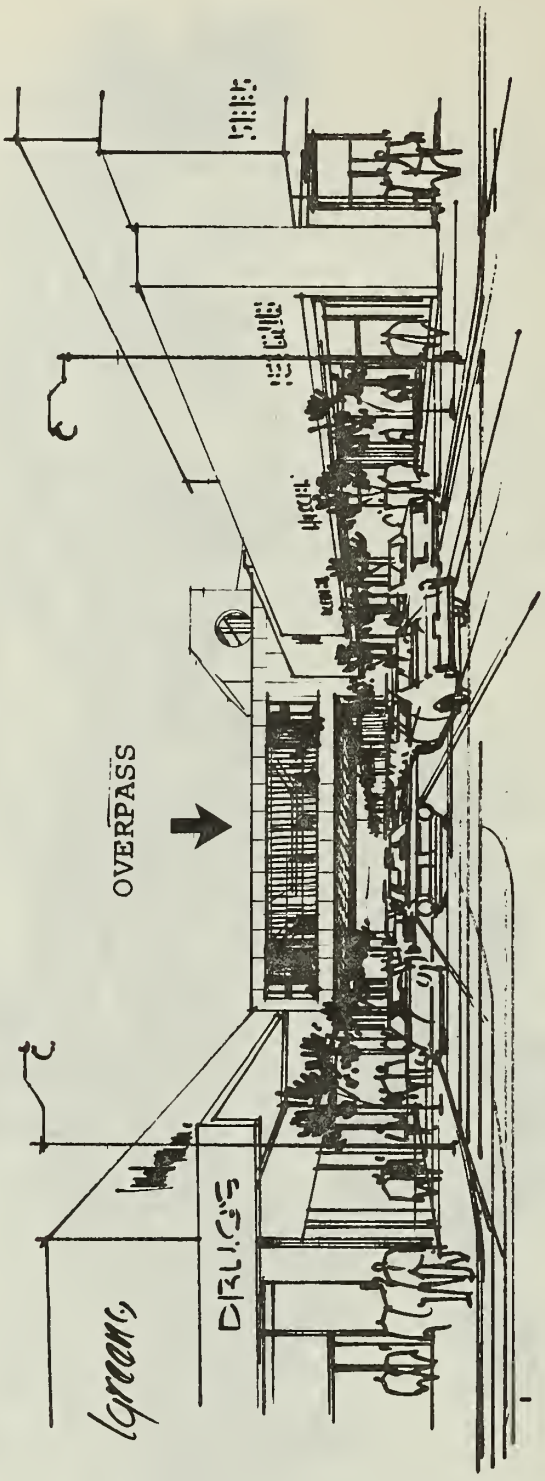
Approached on Winston Drive from the north, the parking garage would have the effect of turning the observer inward toward the shopping center to the east, visually controlling the flow of traffic.

G. LAND USE AND DEMOGRAPHY

Most elements of the project would intensify existing uses rather than change them. Almost all of the project site south of Winston Drive would be covered by two structures. The existing two-story building would be replaced by one with three stories (one underground) that would span the area between Winston Drive and Buckingham Way, covering the parking area south of the existing building and occupying 58,300 square feet. The garage would cover a nearly equal area, 58,080 square feet, and would provide space for 670 cars.

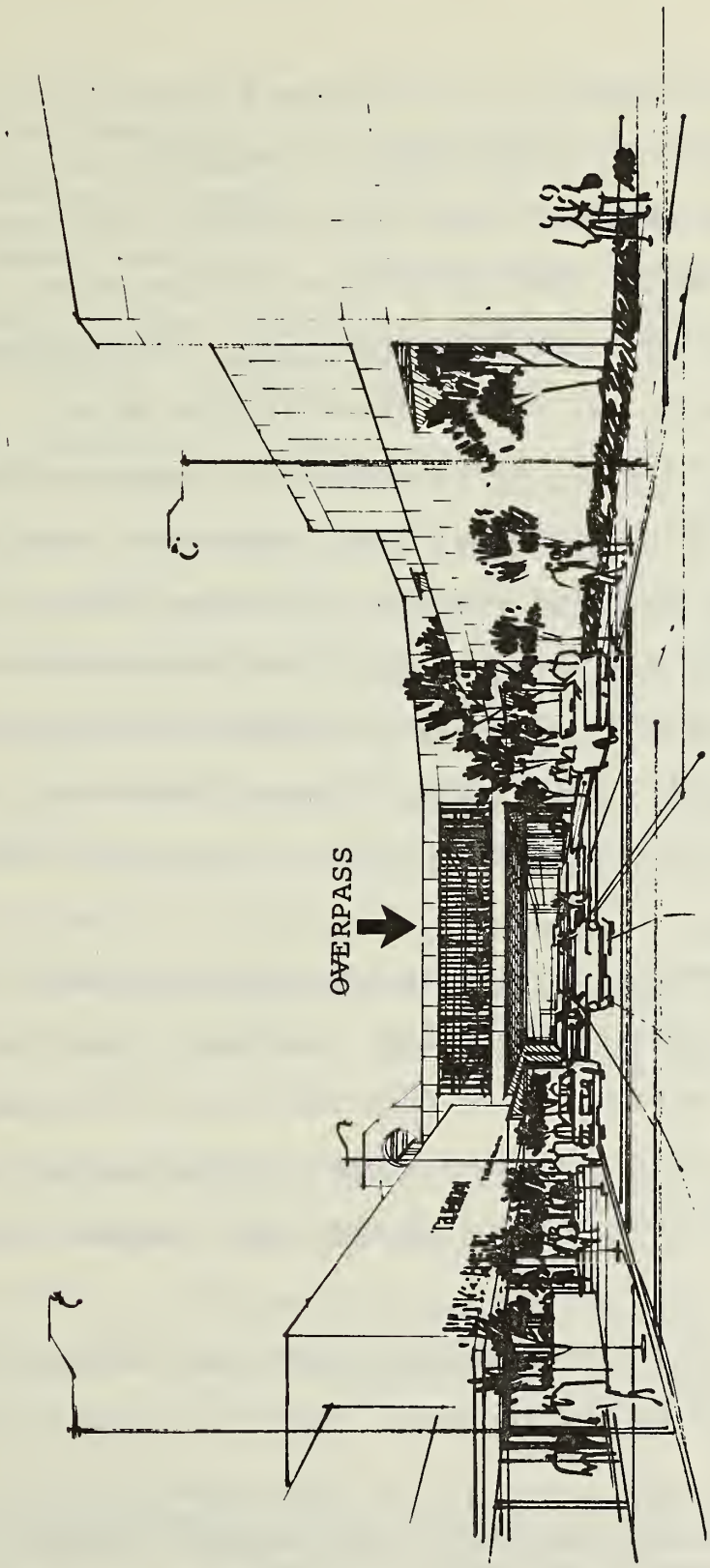
RENDERING · LOOKING NORTH FROM BUCKINGHAM WAY

FIGURE 14



RENDERING - LOOKING WEST FROM WINSTON DRIVE

FIGURE 15



RENDERING · LOOKING EAST FROM WINSTON DRIVE

FIGURE 16

The only element of the proposed project that represents a new use rather than an expansion or modification of existing uses is the elevated connector, containing about 7,600 gross square feet of retail space, that would span Winston Drive, linking the department store with the Stonestown mall. This connector represents use of public air rights above Winston Drive. A precedent for this type of use was established with the development of an elevated connector containing retail space over Webster Street at the Japan Center shopping complex. This was part of a public project, the Japanese Cultural and Trade Center Redevelopment Project. The elevated connector required permit approval by the Department of Public Works, the Planning Commission, and the Board of Supervisors, but purchase or lease of air rights was not necessary.[1]

By connecting the new building with the mall, the connector would separate pedestrian and auto traffic. Since the store would be separated by Winston Drive from the rest of the center, the connector would unify shopping center activities by enabling shoppers to walk from one end to the other without interference by autos.

The San Francisco Comprehensive Plan contains several elements that relate to the project. Policies 8 and 9 of the

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[1]Don Burkholder, Architect, San Francisco Redevelopment Agency, telephone conversation September 3, 1976.

Conservation Element of the Urban Design Plan[1] are concerned with private use of public street areas or air rights as required by the proposed overpass. These policies recommend that the City:

- maintain a strong presumption against the giving up of street areas for private ownership or use, or for construction of public buildings (Policy 8);
- review proposals for the giving up of street areas in terms of all public values that streets afford (Policy 9).

Policy 8 recommends that street areas be given up only if "extremely positive and far-reaching justifications" are evident. Policy 9 includes criteria by which a proposal for private use of public use of street areas is to be judged. With consideration of the fact that the proposed overpass would require only the lease or sale of public air rights, the public benefits, such as additional revenue and employment, increased safety, and improved transportation and circulation, should be weighed against loss of views and sunlight, intrusion on open space, and increased winds and discomfort.

The Transportation Element[2] also contains objectives and policies that relate to the project. Objective 3 of the Thoroughfare Plan is to provide safe and pleasant space for pedestrians. Policy 3 is to ensure convenient and safe pedestrian crossings.

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[1]San Francisco Department of City Planning, The urban design plan for The Comprehensive Plan of San Francisco, May 1971.

[2]San Francisco Department of City Planning, Transportation: The Comprehensive Plan, adopted April 27, 1972.

H. COMMUNITY SERVICES

1. Water

The proposed project would consume roughly 35,000 gallons of water per day.[1] The service connection would be made from a 12-inch main on the north side of Winston Drive. Water is available to serve the project's needs.

2. Wastewater[2]

The proposed project would deliver about 35,000 gallons per day (0.035 million gallons per day) into the sewer system. This would represent an increase of 0.06 percent in the average daily dry-weather load at the Richmond-Sunset treatment plant. This addition could be treated easily during dry weather but would contribute to untreated wet-weather overflows during rainfall of more than 0.02 inch per hour until interim improvements to the Richmond-Sunset plant are completed.

3. Solid Waste

The proposed project is expected to generate about 1.7 tons of solid waste per day.[3] Service collections would be made

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[1]Michael Richardson, Supervisor of Service and Supply, San Francisco Water Department, personal interview February 24, 1976.

[2]Arthur Brandow, Division of Sanitary Engineering, San Francisco Department of Public Works, telephone conversation February 23, 1976.

[3]California Solid Waste Management Board, Solid waste generation factors in California, Technical Information Series Bulletin No. 2, July 8, 1974.

every three to five days.[1] The solid waste generated from the project site would represent about 0.0013 percent of San Francisco's total solid wastes.[2]

4. Fire Protection

The San Francisco Fire Department Division of Planning and Research has reviewed the plans and has determined that the water supply for fire fighting is adequate in the area. Roads and driveways meet minimum access width requirements.[3] The design of the pedestrian overpass would be reviewed by a fire inspector working within the Bureau of Building Inspection, and fire prevention requirements would be developed prior to approval of a construction permit.[4]

5. Police Service

By increasing pedestrian and auto traffic, the proposed project could increase the number of incidents reported to police.

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[1]Dino Queirolo, Vice President, Sunset Scavenger Corporation, telephone conversation February 24, 1976.

[2]Stanford Snoek, San Francisco Department of Public Works, telephone conversation October 17, 1975.

[3]Chief Robert E. Rose, San Francisco Fire Department, letter to Environmental Impact Planning Corporation March 10, 1976, on file at the San Francisco Department of City Planning.

[4]Richard Dixon, Fire Inspector, Fire Prevention Bureau, San Francisco Fire Department, telephone conversation September 3, 1976.

It is not expected to cause any unusal enforcement problems or to require the San Francisco Police Department to add personnel.[1] No additional enforcement problems or manpower requirements are currently foreseen by the Stonestown Security Department.[2]

I. ENERGY CONSUMPTION

Energy used by the project would be provided by electricity. The connection for the department store would be a 4,000 ampere, 277/480-volt bus duct connected to a Pacific Gas and Electric Company outdoor transformer. The connected kilowatt load of the department store is designed at 1,920 Kw.

The average daily electrical use would be 13,900 kilowatt-hours (Kwh) for the department store, 1,400 Kwh for the lights in the parking structure, and 4,350 Kwh for the enclosed mall.

The distribution of electrical use for a 24-hour period on an average weekday is shown in Figure 17. A minimum of electricity would be used between midnight and 8 a.m., mainly for security lighting. As personnel arrived, usage would increase between 8 and 10 a.m. At 10 a.m. the store would open and usage would increase sharply with the onset of functioning of all lighting and mechanical systems. At 9 p.m. the store would close and usage would quickly drop to the minimum.

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[1]Captain Donald Taylor, San Francisco Police Department, telephone conversation February 26, 1976.

[2]Gene Orr, Chief Security Officer, Stonestown Security Department, personal interview April 1, 1976.

The average monthly electrical use rate would be 460,000 Kwh per month, or 2.4 Kwh per square foot per month. Figure 17 shows the project's monthly average consumption. The period of highest electrical consumption would be summer, owing to air-conditioning loads. San Francisco and its commercial sector also peak during the summer.[1]

Traffic generated by the project would increase the consumption of fossil fuels. Based on the increases in shopping trips, gasoline usage associated with the shopping center would increase by a maximum of 16 percent.

Energy in the form of fossil fuels and electricity would also be used in construction activities and in the manufacture of various components of the proposed structures.

J. DIRECT ECONOMIC IMPACTS DURING CONSTRUCTION

The cost of the project is estimated at $9,750,000, of which 2.35 million dollars would be for the parking garage, 20 million dollars for the mall expansion, and the remainder for the new retail store and connector. The developer estimates that about 15,750 person-weeks of construction employment would be needed to construct the project. No schedule has been developed for the mall expansion; however, assuming 15 months for completion, 190 workers would be employed on construction of the parking garage, department store, and elevated connector.

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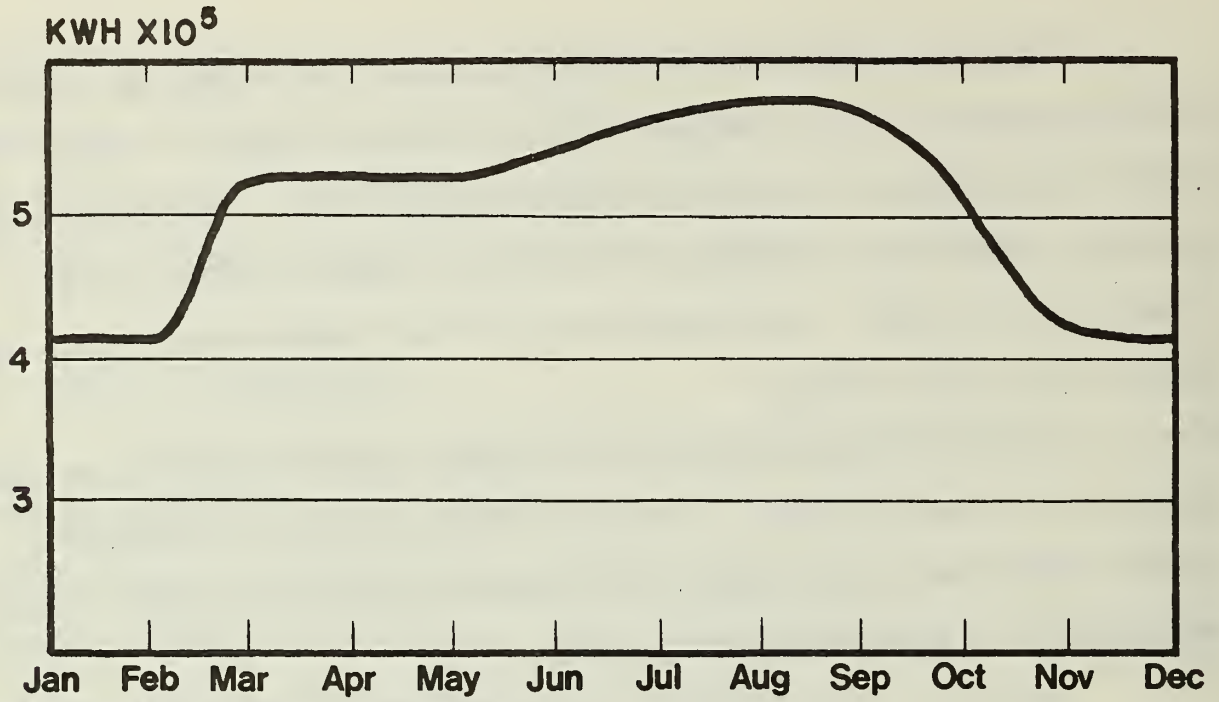
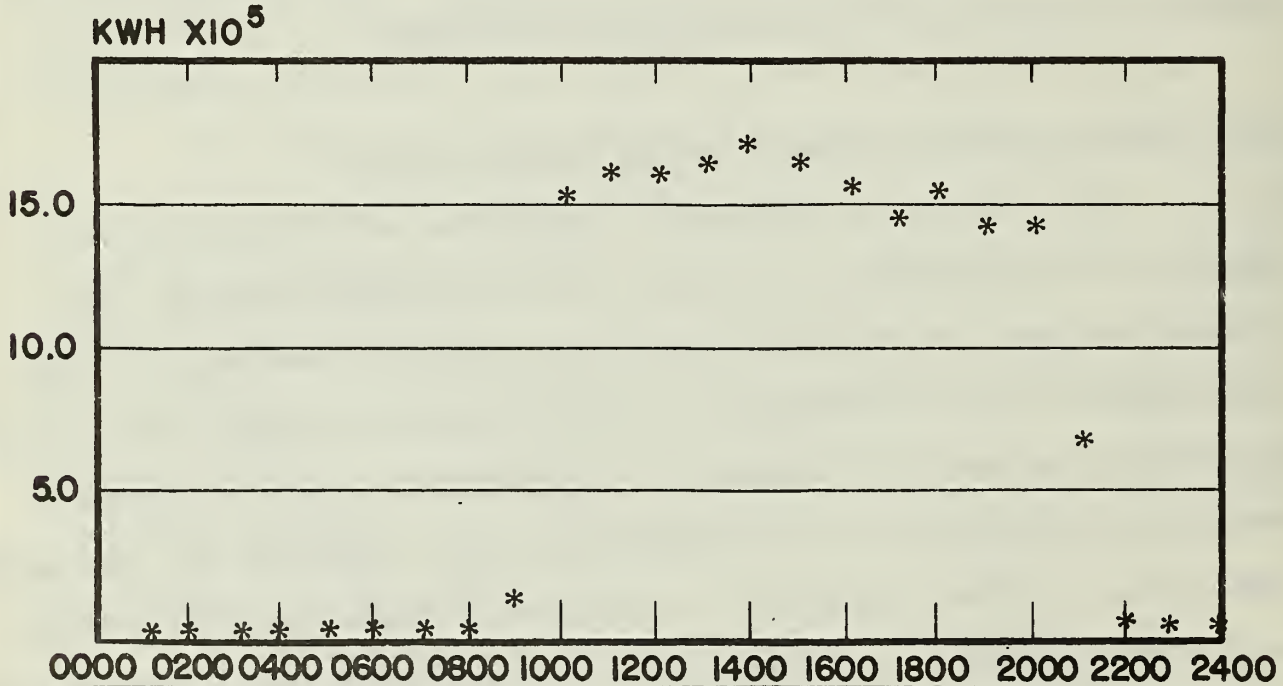
[1]California Energy Resources Conservation and Development Commission, Quarterly fuel and energy summary, second quarter 1975.



Monthly Consumption



Hourly Consumption

ELECTRICAL CONSUMPTION

FIGURE 17

Construction expenditures and employment would generate a short-term increase in activity for other sectors of the economy, such as the construction material, retail, and service sectors.

K. LEVEL OF BUSINESS ACTIVITY AND EMPLOYMENT GENERATED BY THE PROPOSED PROJECT

Based on information provided by the developer, the proposed project is expected to generate sales of $18 million in its first year of operation and $22 million by the fifth year. Under the present project schedule, the first full year of operation would be 1978, during which the shopping center, as it exists now, is projected to have a sales volume of $75.6 million.

The project would create a 24 percent increase in sales, raising total sales for the shopping center to $93.6 million in 1978. This increase in sales volume would be generated by a 27 percent growth in building area currently under active use (an increase of 180,000 square feet over the existing active area of 701,340 square feet excludes 64,400 square feet of vacant space in the City of Paris Stonestown building).

Bullock's has indicated that 140 full-time and 180 part-time workers, a total of 320, would be employed in the store. Of these, 85 full-time and 110 part-time employees would be in sales. Since 43 percent of the jobs would be part-time positions, the project would probably provide employment opportunities for students at nearby San Francisco State University.

L. FISCAL IMPACTS

Assuming that the sales tax rate remains at the existing level of 6.5 percent, the proposed project could generate annual sales tax receipts of $1.17 million. Of this, $900,000 would accrue to the State (5%), $180,000 to the City and County of San Francisco (1%), and $90,000 to the Bay Area Rapid Transit District (0.5%) (see Table 1). After five years of operation, annual sales tax receipts would increase to $1.43 million as sales grew to $22 million, assuming no change in the rate.

These tax revenue increases would take place if all project sales were new sales. Some of these sales would, in fact, have been made elsewhere if the project were not built. The project sponsors expect to take in revenues from three sources: retail sales displaced from existing centers in San Francisco; sales captured from competing centers outside the city; and new sales representing a previously untapped market.

Assessed valuation for the project site and improvements is expected to increase from the 1975-76 figure of $380,695 to $2.1 million.[1] Based on the current property tax rate of $11.50 per $100 of assessed value, the new facilities would generate property taxes of $241,500 annually, an increase of $197,720 over the existing tax of $43,780.

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[1]Information provided by developer.

TABLE 1

Estimated Tax Receipts

Sales Tax

	First Year	Fifth Year
Estimated sales volume	$18,000,000	$22,000,000
Sales tax rate[1]	6.5%	6.5%
Total sales tax receipts	1,170,000	1,430,000
State share (5%)	900,000	1,100,000
City/County share (1%)	180,000	220,000
BART share (½%)	90,000	110,000

Property Tax

Assessed value	$ 2,100,000
Property tax rate[1]	11.50 per $100
Total property taxes	241,500

[1]Assumes tax rate will remain the same.

M. IMPACT ON REGIONAL RETAIL ACTIVITY

Retail floor area is projected to increase by 330,000 square feet by 1985 in the entire western section of San Francisco.[1] The expected net increase of 116,000 square feet created by the proposed project would represent about 35 percent of the total projected increase.

Projections also indicate a growth in retail employment of 546 in western San Francisco between 1973 and 1985 despite a decrease in retail employment in the city between 1970 and 1973. The increase in employment due to this project would represent nearly 60 percent of this projected increase.

Given the relationship of the Stonestown Shopping Center to other commercial centers in western San Francisco and outside San Francisco, such an increase in retail activity would not be unexpected. Such growth could give Stonestown a competitive advantage that would reduce activity elsewhere in that shoppers who previously traveled greater distances to other shopping areas, such as Serramonte Center (4 miles south), Tanforan (7 miles southeast), or downtown San Francisco (6 miles northeast) would shop at Stonestown.

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[1]Arthur D. Little, Commercial and industrial activity.

Although population in the immediate area of the shopping center (San Francisco Department of City Planning, Planning District 17)[1] has been declining, the mean income of families in the area is almost 30 percent higher than the city mean ($16,100 vs. $12,500 in 1969 dollars). Thus the residents of this area have more buying power than the general city population. This indicates a potential level of retail activity higher than that expected purely from trends in population.

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[1]Includes the Ocean View, Merced, and Ingleside neighborhoods.

IV. MITIGATION MEASURES PROPOSED TO MINIMIZE IMPACTS

Mitigation measures have been included in the proposed project to minimize the following adverse impacts.

A. INCREASED ENERGY CONSUMPTION ON SITE

A number of steps would be taken to conserve electricity. Fluorescent fixtures would be used instead of incandescent lights, which are less than one-third as efficient. Exterior lighting, canopy signs, and walkway and planter lighting would be controlled by time switches that would turn off all lights at closing time except those needed by janitors or for security.

To decrease thermal transmission through walls, a minimum amount of glass would be used in the department store. An economizer cycle would be installed in the heating, ventilating, and air-conditioning system; this cycle allows outside air rather than mechanical refrigeration to be used for air conditioning when possible and brings in a minimum of outside air when air conditioning is not needed.

The mall enclosure would contain 10 to 12 percent clear glass panels to minimize inside lighting needs during the day. This would be offset by solar heat during summer, which would increase the need for air conditioning. Adjustable blinds could

be used to reduce air-conditioning loads. Such blinds have been included in the design of the pedestrian overpass; they would permit natural lighting but could be closed in late afternoon to reduce heat gain.

Use of natural gas for space and water heating would be more efficient than use of electricity, but natural gas is a declining resource and future supplies are uncertain.

B. OTHER IMPACTS

1. Disruption of Area During Construction

The developer plans to minimize noise and dust generation during construction. Equipment would comply with the San Francisco Noise Ordinance,[1] and construction would be limited to weekday daylight hours. The San Francisco Building Code requires that measures be taken to reduce dust generation, specifically, watering down demolition materials and soil.

2. Site in Hazardous Seismic Zone

The buildings would be constructed according to the San Francisco Building Code, which is intended to prevent structural collapse during strong ground shaking. The use of spread footings would reduce the potential for structural damage due to differential settling during an intense earthquake.

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[1]San Francisco municipal code, Part II, Chapter VIII, Section I, Article 29.

3. Possibility of Historic or Archaeological Artifacts on the Site

The project sponsor would allow an inspection of the project area for archaeological sites following demolition of existing structures and removal of ground cover.

4. Increased Pedestrian Crossing at Winston Drive

The elevated connector would divert pedestrians who might otherwise cross Winston Drive at the south end of the mall.

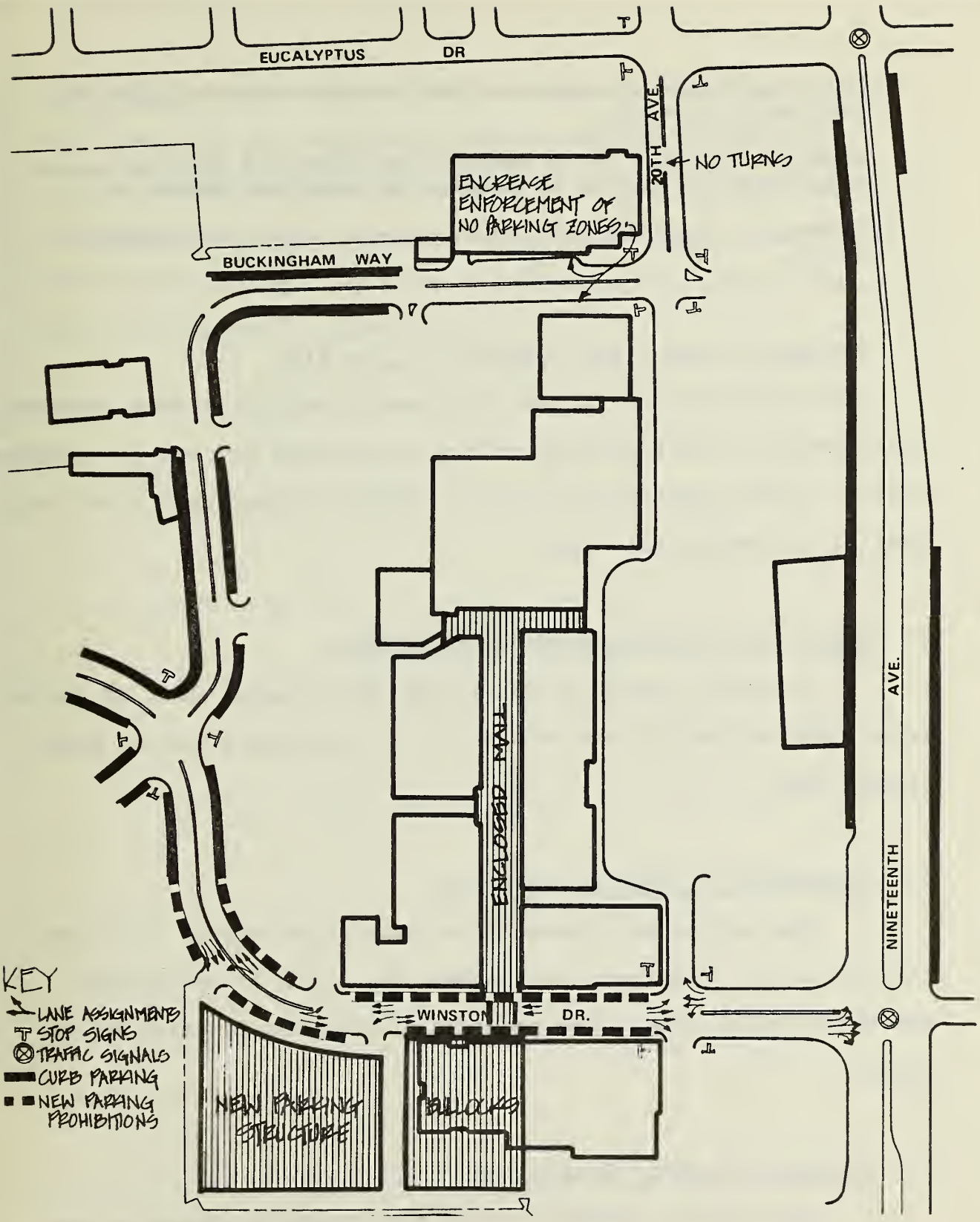
5. Increased Traffic and Congestion (Figure 18)

Several streets in the Stonestown Shopping Center are private; therefore, the following measures would be implemented by the developer without the need for City approval:

- Increase the enforcement of no-parking zones along Buckingham Way from Twentieth Avenue west to the first major parking entrance.
- Install a four-way stop at Buckingham Way and Twentieth Avenue.
- Prohibit U turns in the median break at Twentieth Avenue between Eucalyptus Drive and Buckingham Way.
- If increased travel on the easterly portion of Buckingham Way were to become a problem, the lower floors of the parking garage would be designated for employee parking to reduce turnover.

The following measures would involve city streets and hence the approval and authorization of the City:

- Eliminate curb parking from a point 100 feet west of the west garage entrance east to Twentieth Avenue along Winston Drive.



TRAFFIC MITIGATING MEASURES

FIGURE 18

- Restripe Winston Drive to provide six lanes adjacent to the parking garage.
- Restripe Winston Drive between the proposed parking garage and Twentieth Avenue to provide a five-lane cross section.
- Install a four-way stop at Twentieth Avenue and Winston Drive.

6. Changes in the Visual Quality of the Site

The varied facade of the store would provide visual interest. The setback of this structure from Buckingham Way and the stepped nature of the south facade would provide a transition from residential to commercial areas.

7. Noise from Truck-Unloading Operations

A barrier would be built near the loading dock to reduce noise from unloading operations at the residences across Buckingham Way.

8. Occupation of Public Air Space

The bridge as proposed includes glass areas, which are thought by the architect to lighten the scale of the bridge, and which would reveal the pedestrian-carrying function of the bridge.

9. Increased Traffic Generation

The project sponsors could give transit tokens to customers making a minimum purchase. Bullock's and Stoneson Development Corporation have stated that they would propose such a

program to the Stonestown Merchants Association, but do not feel that they can implement such a program unilaterally.

Location of the department store and parking garage at the south end of the shopping center would shift some traffic from the currently congested north end of the center and would result in improved traffic flow.

V. ADVERSE ENVIRONMENTAL EFFECTS THAT COULD NOT BE AVOIDED IF THE PROJECT WERE IMPLEMENTED

The short-term (construction) adverse impacts that would result from the proposed project are:

- increased noise and airborne dust;
- increased traffic congestion due to construction vehicles;
- disruption of pedestrian flow.

The long-term (permanent) adverse impacts of the project would be:

- blockage of views from apartments along Buckingham Way;
- increases in traffic on nearby streets;
- increases in air pollution and noise due to project traffic;
- more frequent uncomfortable conditions for pedestrians, especially under the overhead connector, because of increased shadows and accelerated winds down Winston Drive;
- increased energy consumption on the site.

VI. ALTERNATIVES

A. NO PROJECT

This alternative would leave the site in its present state. The present City of Paris Stonestown building could be used, although the Stoneson Development Corporation has been unsuccessful in the past in finding a suitable permanent lessee since the City of Paris Stonestown ceased business. The existing structure contains about 64,000 square feet of space, which is too small for a major department store. The project sponsor has been approached with a number of other proposals that could use the existing structure, but none of these would meet the sponsor's objective, which is to provide a major attraction at the south end of the mall to balance the distribution of pedestrian traffic along the mall.

This alternative would eliminate the construction, climate, energy, and community service impacts of the proposed project. The lower traffic generation of such a use would make the pedestrian overpass unnecessary, would be unlikely to require a parking garage, and would have lower noise and air quality impacts on the neighborhood. Tax revenues generated by this alternative would be lower than those of the project as proposed.

B. USE OTHER THAN AS A DEPARTMENT STORE

A number of uses for the site are permitted under the C-2 zoning; other proposed uses include a flea market, office

space, or restaurants. The project sponsor believes that these uses would not relate well to either the existing or the proposed expanded mall because they would not be strong pedestrian attractors. This alternative would tend to separate the area south of Winston Drive into a neighborhood service center (in combination with the existing Stonestown Market), distinct and apart from the mall. This would be particularly true if the mall were enclosed. If the existing City of Paris Stonestown building were used, the impacts on the area would be similar to those of the No Project alternative.

If new facilities were to be built, impacts similar to those of the proposed project would be exerted; however, because these uses would generate less pedestrian and auto traffic, impacts would be reduced. A parking garage or pedestrian overpass could be unnecessary. The lower traffic generation might eliminate the necessity for the proposed traffic mitigation measures. The tax revenues generated by the alternative would be less than those of the project as proposed.

C. ALTERNATIVE DESIGNS

1. Department Store

The potential size of the department store is limited only by the 40-foot height limit and the approved total square footage allowed by the 1962 Planning Commission Resolution. Either larger or smaller stores are possible. The upper limit would be about

181,000 square feet, which would require construction of larger garage. Smaller stores would not meet the requirements of Bullock's.

The impacts of various alternative-size stores would be roughly proportional to size. A larger store would have greater traffic, climate, energy, visual, and construction impacts than the proposed project. A pedestrian overpass and parking garage would be necessary. The larger sales volume would result in generation of tax revenues.

A smaller department store would have correspondingly smaller impacts on traffic, climate, energy, visual quality, and air and noise pollution. A smaller store might not require a pedestrian overpass, and the lower traffic generation might not require the traffic mitigation measures necessitated by the proposed project. Sales and resulting tax revenues would be lower than those for the project as proposed.

2. Parking Garage

The minimum size of the parking garage is controlled by the present requirement of two square feet of parking area to one square foot of floor space. The 280,000-square-foot garage proposed preserves the two-to-one ratio considering the department store and mall expansion. A smaller parking garage would require a modification of the two-to-one ratio by the City Planning Commission. Congestion along Winston Drive would be increased on

high demand days and could lead to customers' parking on Buckingham Way. This congestion could act as a discentive to using the private automobile and increased use of public transportation.

A larger parking garage would not be used to capacity and would be more expensive than the proposed garage. By providing more than the required square footage, the large parking garage would accommodate some future expansion within Stonestown. By providing excess parking supply, a larger garage could encourage use of the private auto at the expense of public transportation.

The parking garage could be designed to accommodate future partial conversion to commercial space. The sloped-floor design of the garage as proposed would make this impossible without total redesign of the structure. The advantage of such an alternative would be its flexibility in the future. Should increased public transit usage reduce parking demands, unused parking space could be put to use. Because such a conversion would both reduce parking space and create retail space, however, the present two-to-one parking/commercial space ratio would have to be relaxed.

The project as proposed does not include space for bicycle parking. The project sponsor would, however, consider converting some auto parking space to bicycle parking in the future if the demand were to arise.

3. Elevated Connector

There are several alternatives to the merchandised pedestrian overpass as proposed:

a. Pedestrian Overpass

This alternative would connect the existing mall to the second level of the proposed department store by way of a simple pedestrian overpass over Winston Drive. The overpass of this alternative would not contain retail space, and the project sponsor believes that it would not attract as many pedestrians as the merchandised overpass. Difficulty in inducing pedestrians to use the overpass might require additional measures, such as a traffic signal, at the existing crosswalk, to reduce pedestrian-vehicle conflicts.

This alternative would reduce the energy demand and construction impacts of the project, since the overpass would be considerably narrower than the proposed merchandised overpass. The shadowed area of this overpass, and the channeling effect on winds would be less than that of the proposed project.

b. Pedestrian Traffic Signal

This alternative would add a pedestrian traffic signal to the crosswalk between the department store site and the mall, in order to assign right of way alternately to pedestrians and vehicles along Winston Drive. It would lower the capacity of Winston Drive for automobile traffic and would reduce the level of service of this portion of the roadway.

c. Uncontrolled Pedestrian Crosswalk

This alternative would be a continuation of the existing uncontrolled pedestrian crosswalk between the existing mall and the proposed department store. If the proposed overpass could attract most or all of the trips between the new department store and the existing mall, the pedestrian volumes crossing at street level could continue safely to cross at an uncontrolled crosswalk. The resulting conditions would be no worse than they are today.

If the project were built with no overpass and an uncontrolled crosswalk, serious pedestrian-automobile conflicts could develop. The pedestrian demand could stop traffic frequently and cause a reduction in the capacity of Winston Drive. Congestion and accidents could increase, and average speeds and level of service could decrease.

4. Mall Enclosure

The mall enclosure could be built of a variety of materials and could take many configurations. Designs using less glass would require more electricity for lighting; designs using more glass would require less daytime lighting but more air conditioning because of heat gain through the glass.

Provision of mechanical ventilation alone rather than air conditioning would reduce energy consumption, but would not allow the opening of store fronts, since the mall stores are currently air conditioned.

D. ALTERNATIVE SITE PLANS WITHIN STONESTOWN SHOPPING CENTER

Several alternative site plans were considered during the development of the plans for the proposed project. These include:

1. Locating the store and garage elsewhere in the shopping center.
2. Realigning Winston Drive.
3. Depressing or elevating Winston Drive.

Each would involve a retail facility containing 150,000 to 200,000 square feet and an associated 600- to 700-space garage.

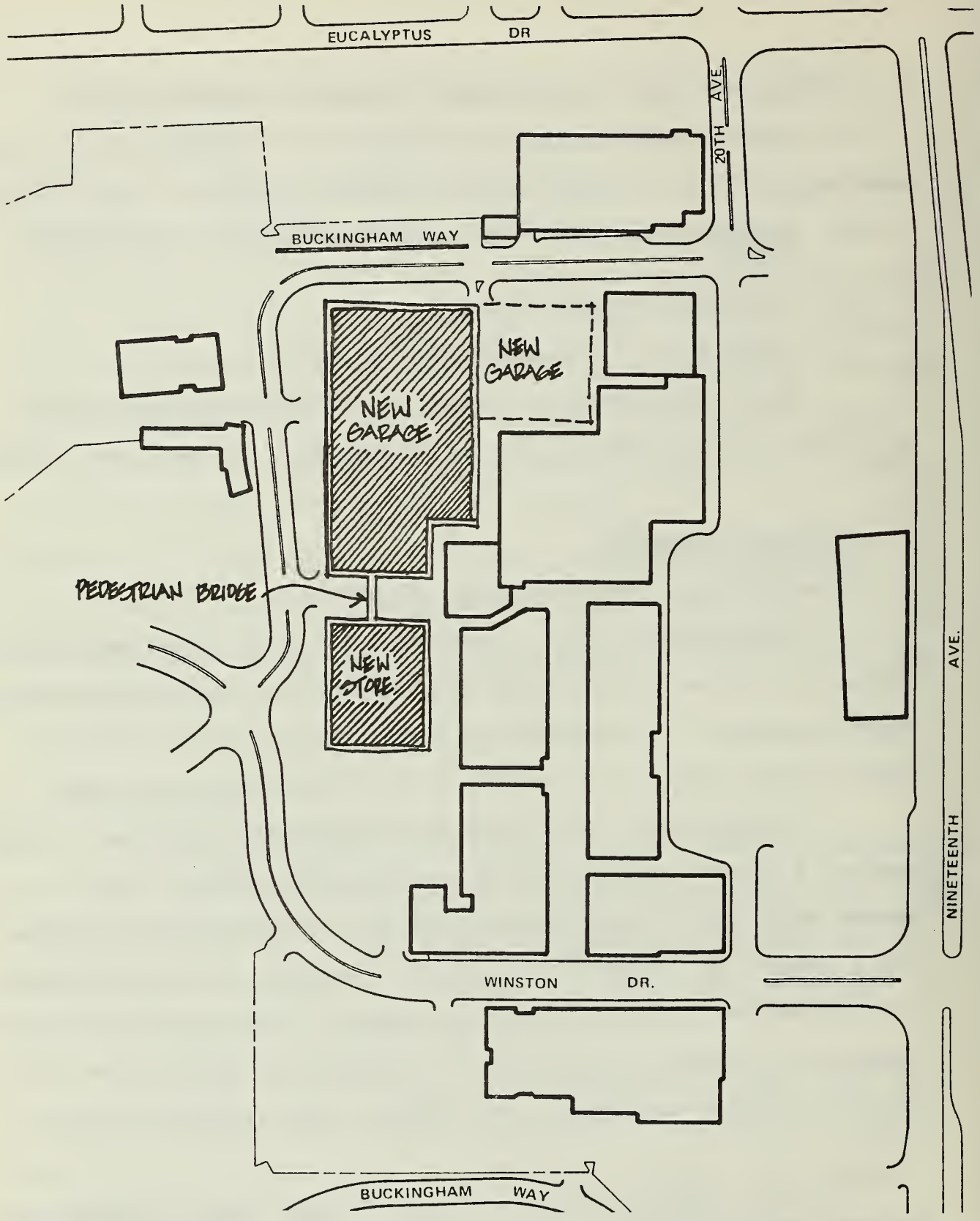
1. Different Location

a. Alternatives A and B (Figures 19 and 20)

Alternatives A and B would involve a new department store located in the western parking lot immediately south of the truck tunnel entrance. In Alternative A the parking garage would be north of the store; in Alternative B it would be to its south.

Alternative A would have the advantage of efficient parking because a garage could be built on this large parcel.[1] The garage could not be extended all the way to the Emporium because the J. Magnin building would need truck access. The disadvantage of Alternative A would be that the garage to the north would further concentrate traffic activity in the northern portion of the site, which is already congested. In addition, the location of the

[1]A large parking garage is more efficient than a smaller one because the proportion of space used for exit, entrance, and circulation is smaller.



Alternative A

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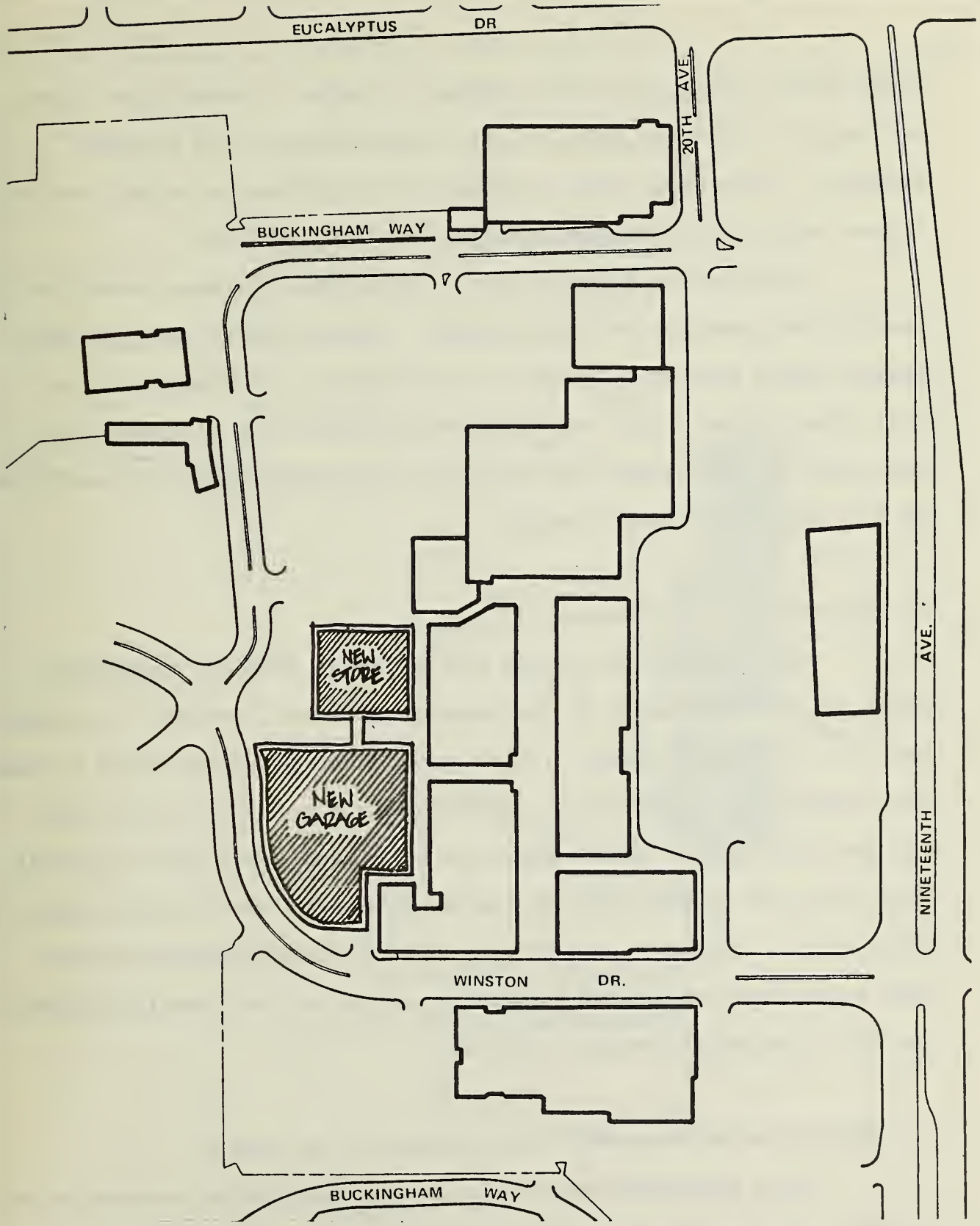
SCALE IN FEET

FIGURE 19



Alternative B

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SCALE IN FEET

FIGURE 20

store would not balance the center in terms of pedestrian flow, so that it would not meet all the objectives of the project sponsor. No bridge would be required over Winston Drive, and this layout would not increase pedestrian-auto conflicts.

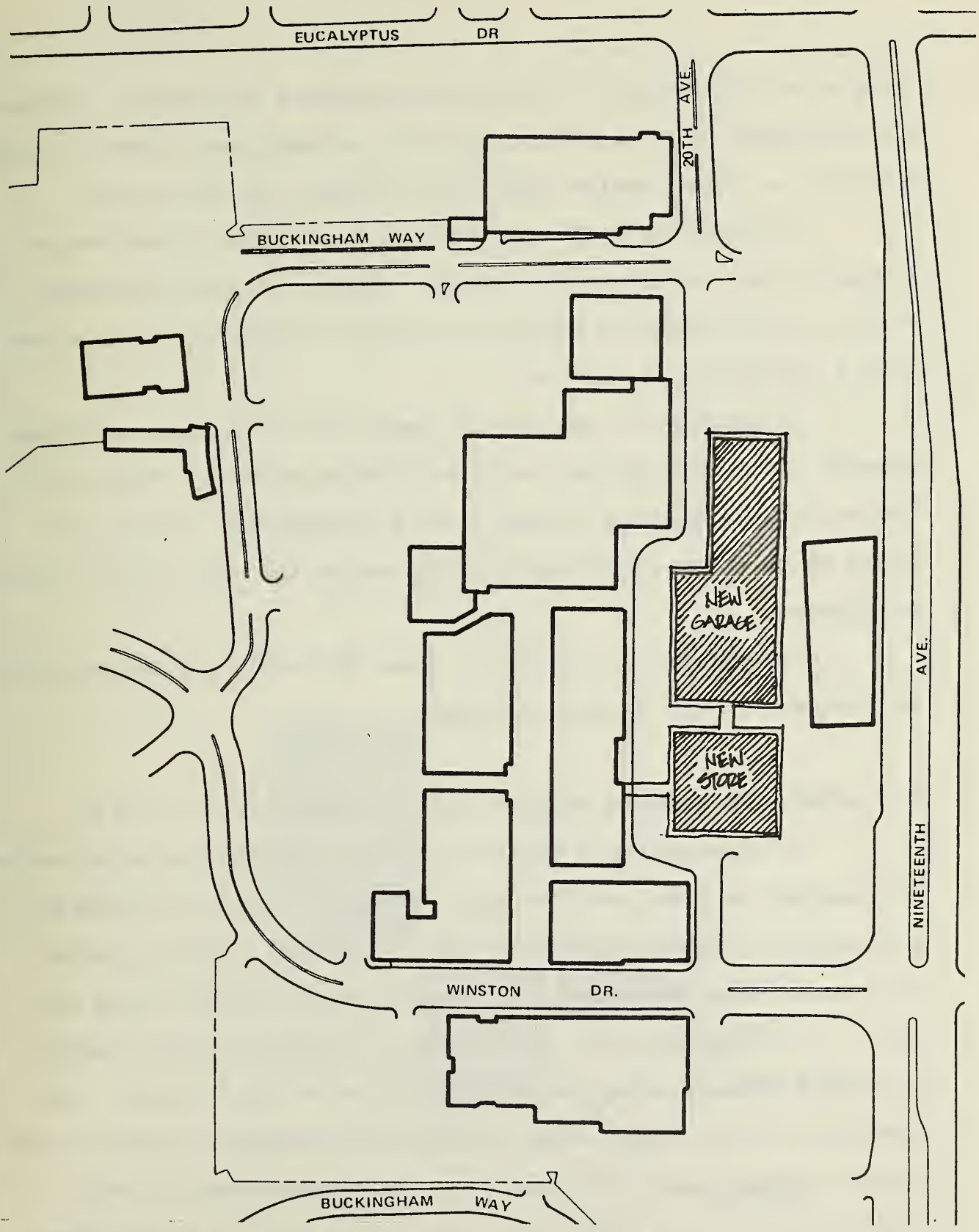
Alternative B would have a very small garage, resulting in inefficient parking and high costs. Access points to/from this garage would be limited due to the alignment of Winston Drive. This alternative would not require a bridge over Winston Drive and would not increase the potential for pedestrian-auto conflicts as the proposed project would.

b. Alternative C (Figure 21)

This alternative would add a garage and new department store on the east side of the center; however, because the garage would be long and narrow, a high proportion of space would be used for access and circulation, resulting in a relatively high cost per parking space. A new store in this area would also eliminte about 150,000 square feet of the most heavily-used parking area in the shopping center. In addition, the project sponsor believes that a parking garage and new store would not be visually appealing for Nineteenth Avenue traffic.

E. REALIGN WINSTON DRIVE (Alternatives D, E, and F)

These alternatives would involve realigning Winston Drive to eliminate vehicle-pedestrian conflicts along that street and to



Alternative C

FIGURE 21

give more flexibility in siting the proposed structures. Because San Francisco considers Winston Drive an important street in its network, a 30-mph design speed was selected for this route.

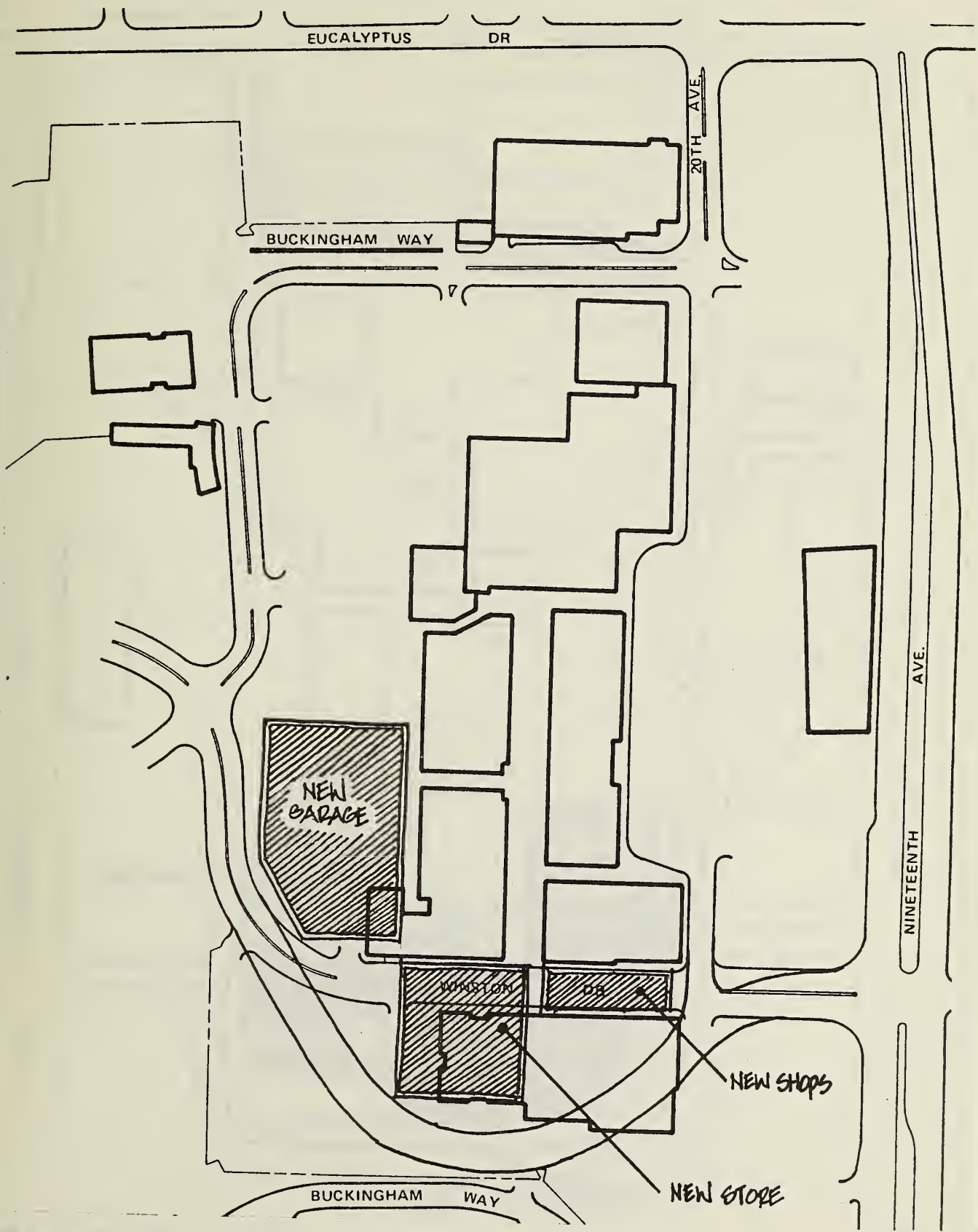
Alternative D (Figure 22) would meet the 30-mph design criterion but would necessitate the removal of the Stonestown Market, which would be costly to the developers and would eliminate a neighborhood service.

Alternative E (Figure 23, page 84) would have realigned Winston Drive all the way south to Buckingham Way. This alternative would introduce traffic onto a residential street and would cause grade differential problems on the west side of the realignment.

Alternative F (Figure 24, page 85) could not be designed to meet the 30-mph design criterion.

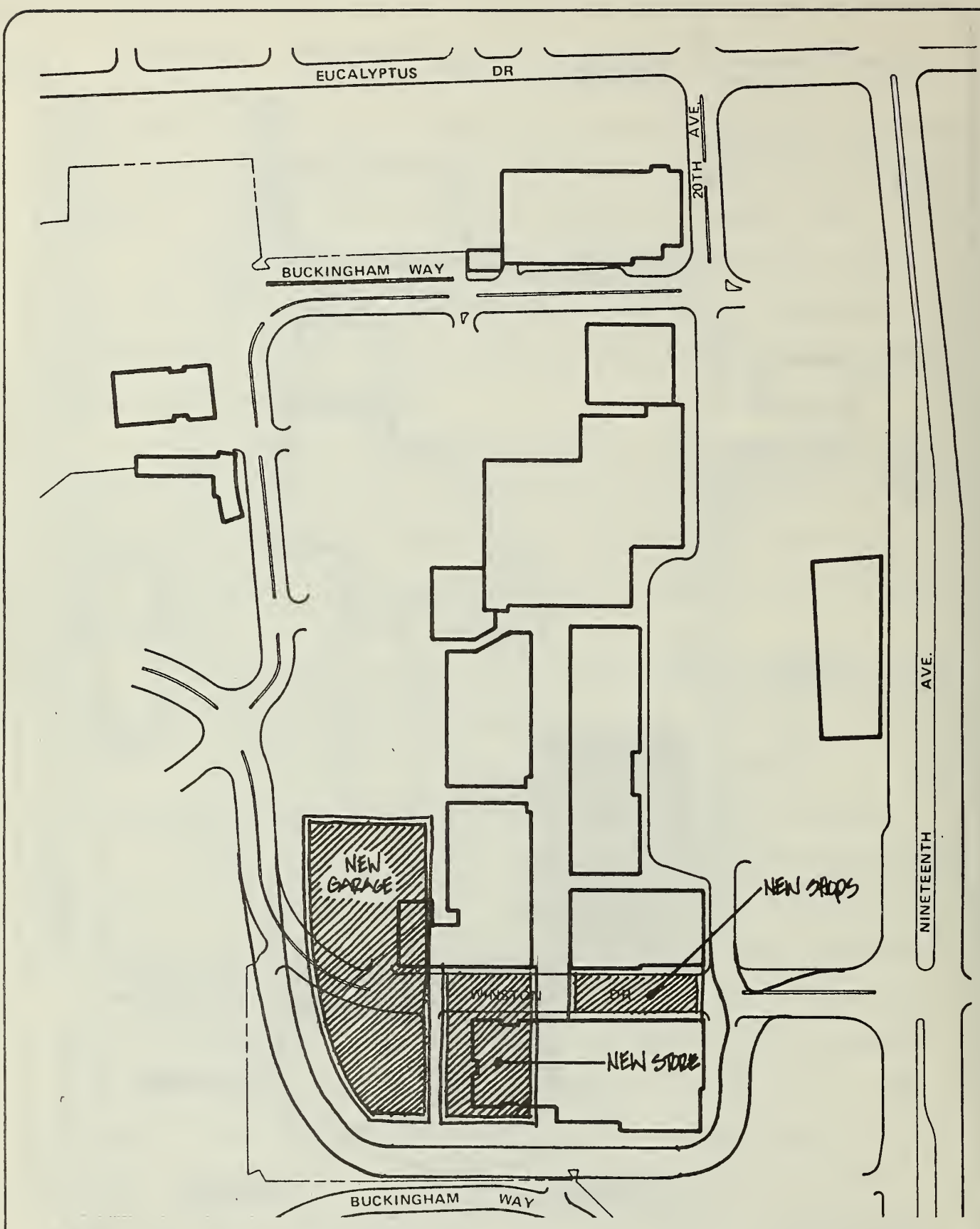
F. DEPRESS OR ELEVATE WINSTON DRIVE (Alternatives G and H)

In Alternative G (Figure 25, page 86) Winston Drive would be elevated to pass over the mall and would return to grade by the time it reached Buckingham Way to the west. This alternative would separate pedestrian and vehicular traffic along the mall. The shopping mall could continue directly under Winston Drive and connect with the proposed store at grade level. The elevated section could serve a number of different levels of the parking garage west of the store. The disadvantage of this alternative was the steep grade that would have to be provided



Alternative D

FIGURE 22



Alternative E

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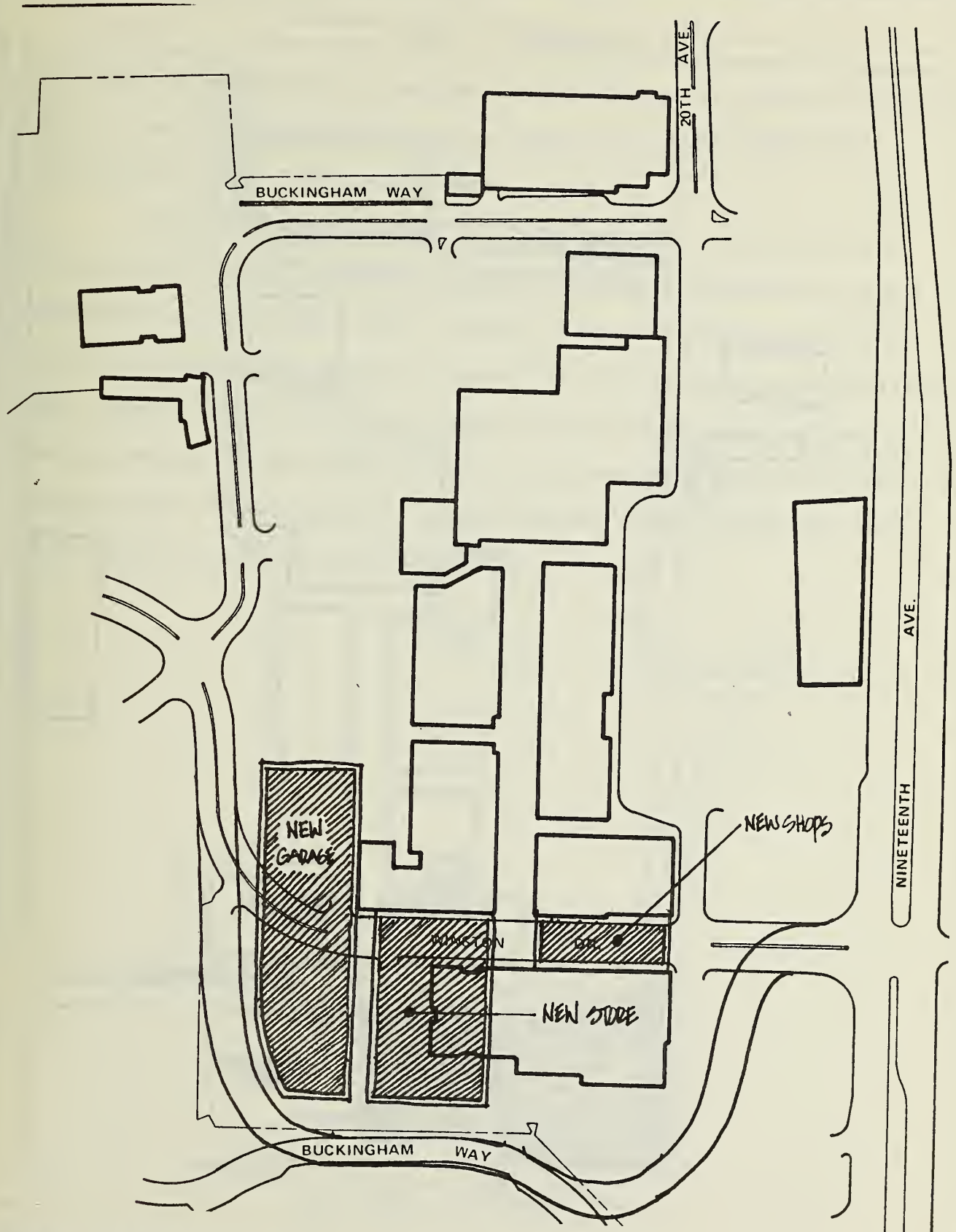
SCALE IN FEET

FIGURE 23



Alternative F

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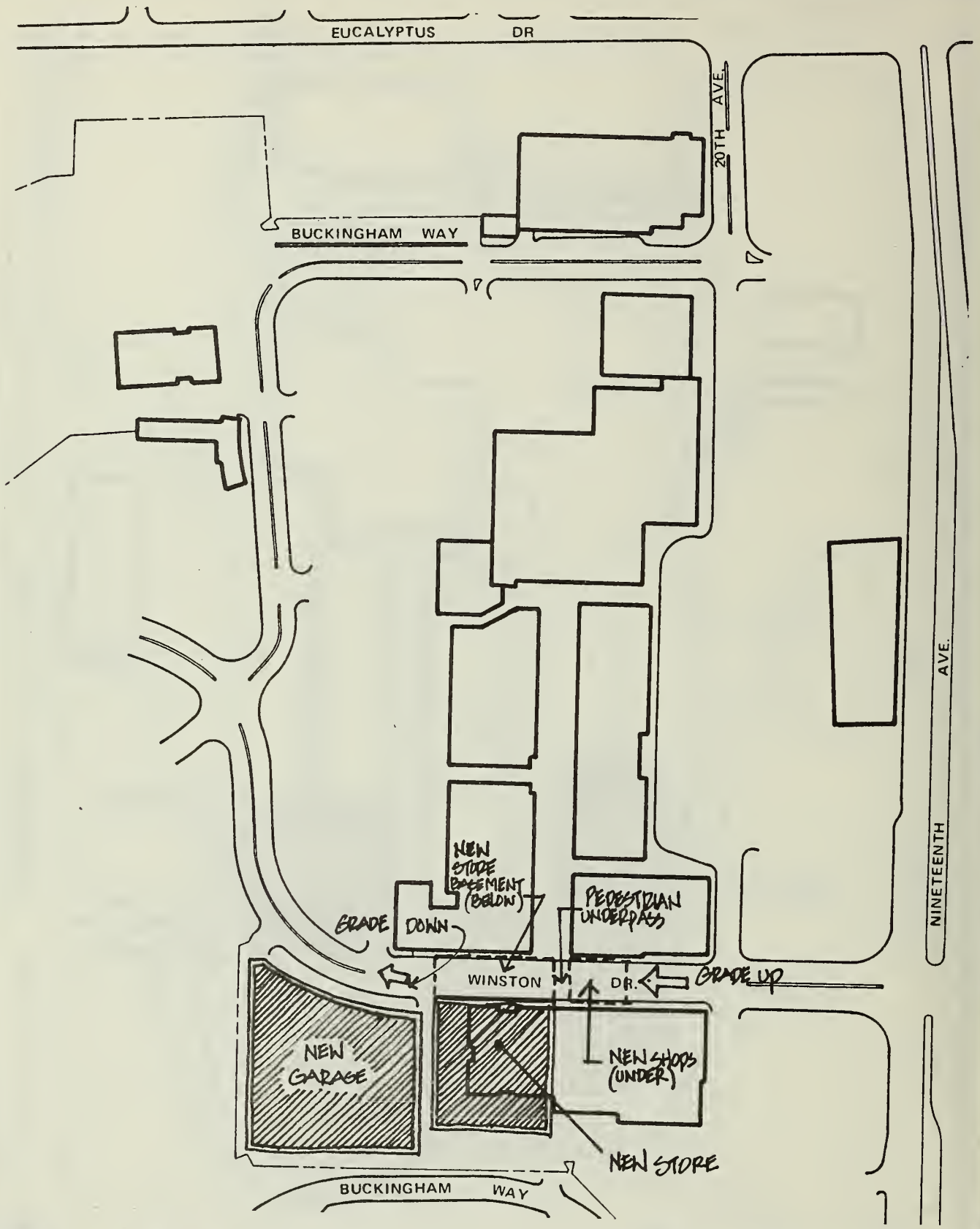
SCALE IN FEET

FIGURE 24



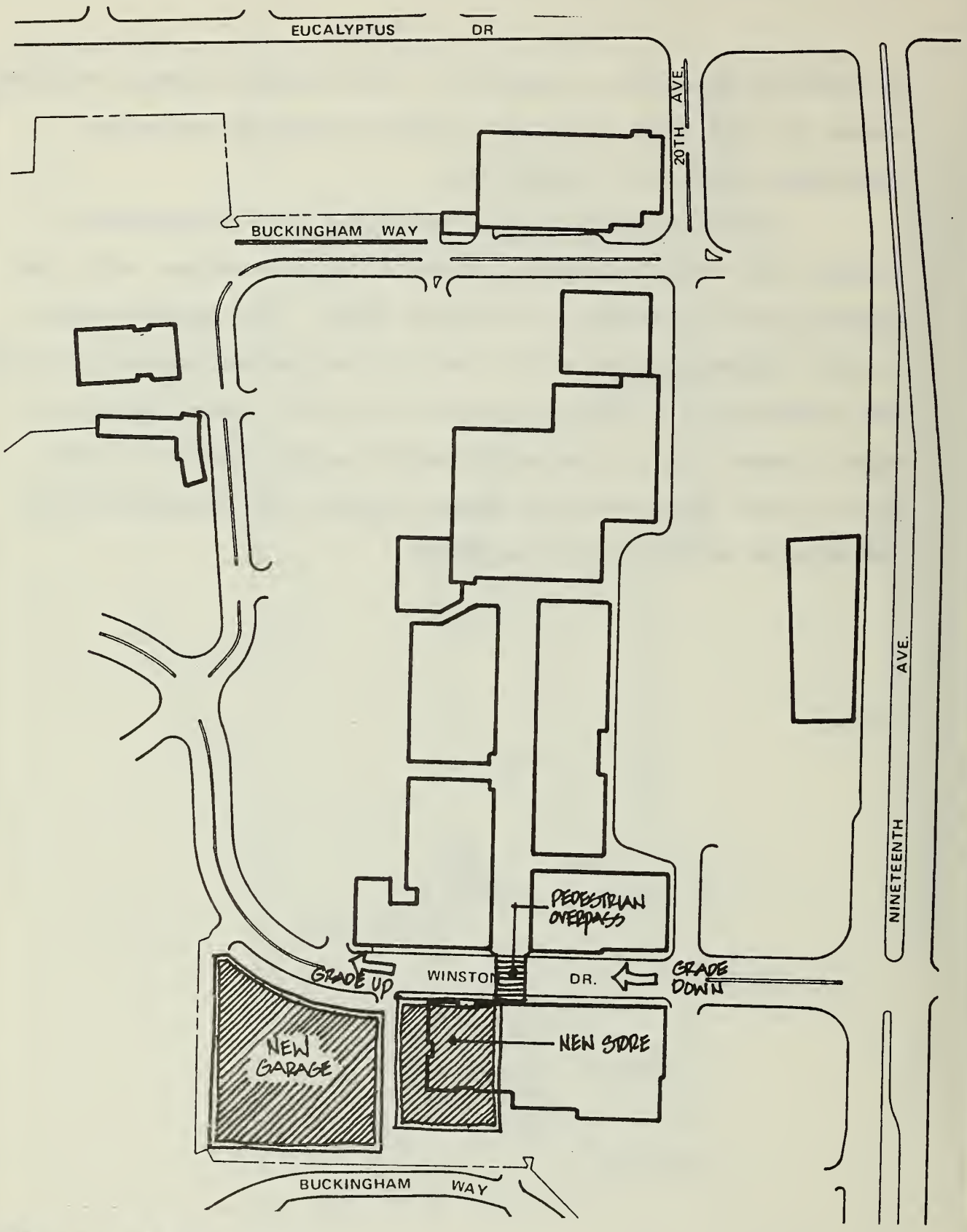
Alternative G

0 100 200
SCALE IN FEET

FIGURE 25

to reach an acceptable clearance. The distance between Twentieth Avenue and the mall would not be great enough to allow an acceptable grade for transit use.

Similar problems were encountered with Alternative H (Figure 26), which involved a Winston Drive underpass with the shopping mall extended over Winston Drive. The disadvantages of this alternative were the costs of relocating underground and the inability of trucks and buses to use the street because of steep grades. This alternative would require removal of the truck tunnel that currently passes beneath the Stonestown Mall and extends south to Buckingham Way.



Alternative H

FIGURE 26

VII. RELATIONSHIP BETWEEN SHORT-TERM USES OF THE ENVIRONMENT AND THE MAINTENANCE OF LONG-TERM PRODUCTIVITY

The project would intensify uses of the site and renovate the existing mall. The ultimate purpose of the project is to increase the attractiveness of the shopping center in an effort to compete more favorably with other existing shopping centers. The project was selected from all alternatives as providing the greatest potential for increasing the ability of the center to compete with other, similar facilities.

Delaying the project would probably increase project costs due to inflation and could cause further erosion of the center's ability to compete successfully. In addition, such a delay would probably cause Bullock's to locate elsewhere. On the other hand, delay of the project would provide flexibility in planning the desired size of the parking garage, and would still allow the option of locating another store at the site.

The proposed structures would increase the productivity of the site in terms of human uses through increased employment and economic returns to state and local governments from sales and property taxes. By providing a major department store that would tend to "balance" the Stonestown Mall, and by increasing comfort on the mall, the project would contribute to improved productivity and the economic health of the entire center. In

that the project is designed to increase the shopping center's ability to compete, the productivity of other similar facilities might be reduced.

VIII. IRREVERSIBLE ENVIRONMENTAL CHANGES

Construction of buildings and changes to the landscape are not technically irreversible, but would be expected to be permanent in the visual sense of the word. Other irreversible environmental changes associated with the proposed project are the commitment of resources used in constructing the buildings and the energy consumed during the construction phase and throughout the life of the project.

IX. THE GROWTH-INDUCING IMPACT OF THE PROPOSED ACTION

The proposed project is not expected to induce population or economic growth in the area outside of the shopping center.

The development of a major department store and parking facility at the southern end of the shopping center would probably stimulate business for shops located along the mall, thus increasing the number of potential customers. The general retail activity for the center as a whole would be increased, since the new facility would attract more shoppers to the complex. This increased vitality of the center could stimulate other potential projects, such as restaurants.

Construction and permanent employment would generate increased activity for other sectors of the economy through the economic multiplier effect of new salaries.

An unknown proportion of the new trips to the center would be trips from San Mateo County that are now made elsewhere. These trips represent a growth in the number of visitors to San Francisco. An unknown portion of the new trips would not be made if the project were not built; this represents new growth in retail sales in San Francisco.

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Water Department
425 Mason Street
San Francisco, California 94102
(415) 558-3196

Attention: Michael Richardson
Alfred Suen, Associate Civil Engineer, C18663

Redevelopment Agency
939 Ellis Street
San Francisco, California 94109
(415) 771-8800

Attention: Donald Burkholder, Architect

Adan E. Treganza Anthropology Museum
San Francisco State University
1600 Holloway Avenue
San Francisco, California 94132
(415) 469-1642

Attention: Miley Holman

Golden Gate Disposal Company
900 Seventh Street
San Francisco, California 94103
(415) 626-4010

Attention: John Moscone, President

Sunset Scavenger Corporation
Tunnel Avenue and Beatty Road
San Francisco, California 94134
(415) 467-8411

Attention: Dino Queirolo, Vice President

Stonestown Security Department
3150 Twentieth Avenue
San Francisco, California 94132
(415) 731-2064

Attention: Gene Orr, Chief Security Officer

XI. DISTRIBUTION LIST

REGIONAL

Bay Area Air Pollution
Control District
939 Ellis Street
San Francisco, CA 94109
Attn: Ralph Mead

Association of Bay Area
Governments
Hotel Claremont
Berkeley, CA 94705
Attn: Vivian Brown

SAN FRANCISCO

Human Rights Commission
1095 Market Street, Room 501
San Francisco, CA 94103

Committee for Utility Liaison
on Construction and Other
Projects (CULCOP)
c/o GES - Utility Liaison
City Hall, Room 363
San Francisco, CA 94102
Attn: Herman Beneke

Public Utilities Commission
949 Presidio Avenue
San Francisco, CA 94115
Attn: James J. Finn,
Director of Transportation

LIBRARIES

Documents Department (2 copies)
City Library - Civic Center
San Francisco, CA 94102
Attn: Faith Van Liere

Social Science, Business and
Ethnic Studies Library
San Francisco State University
1600 Holloway Avenue
San Francisco, CA 94132
Attn: Mimi Sayer

Hastings College of the Law-
Library
198 McAllister Street
San Francisco, CA 94102

Government Documents Section
Stanford University
Stanford, CA 93063

Environmental Protection Agency
100 California Street
San Francisco, CA 94111
Attn: Jean Circiello

NEWSPAPERS

San Francisco Chronicle
925 Mission Street
San Francisco, CA 94103
Attn: Dale Champion

San Francisco Bay Guardian
1070 Bryant Street
San Francisco, CA 94103
Attn: Ken McEldowney

San Francisco Progress
851 Howard Street
San Francisco, CA 94103
Attn: Dan Borsuk

San Francisco Examiner
110 Fifth Street
San Francisco, CA 94103
Attn: Don Cantor

NEWSPAPERS (continued)

Oakland Tribune
13th and Franklin
Oakland, CA 94612
Attn: Fred Garretson

ORGANIZATIONS

San Francisco Tomorrow
728 Montgomery Street
San Francisco, CA 94111
Attn: Susan Smith

Sierra Club
San Francisco Bay Chapter
5608 College Avenue
Oakland, CA 94618

Friends of the Earth
529 Commercial Street
San Francisco, CA 94111
Attn: Connie Parrish

Northern California Committee
for Environmental Information
P. O. Box 761
Berkeley, CA 94701
Attn: Donald Dahlsten

San Francisco Beautiful
840 Urbano Drive
San Francisco, CA 94127
Attn: Henry Heyl

San Francisco Ecology Center
13 Columbus Avenue
San Francisco, CA 94111

San Francisco Junior Chamber
of Commerce
24 California Street
San Francisco, CA 94111

Greater San Francisco
Chamber of Commerce
465 California Street
San Francisco, CA 94104

San Francisco Planning and
Urban Renewal (SPUR)
939 Ellis Street
San Francisco, CA 94109
Attn: Redmond Kernan

Women in Construction
c/o Prim Investments
650 California Street, Suite 2900
San Francisco, CA 94108

San Francisco Convention
and Visitors Bureau
Fox Plaza, Suite 260
San Francisco, CA 94102

Downtown Association
582 Market Street
San Francisco, CA 94104

Bay Area Women's Coalition
944 Market Street
San Francisco, CA 94102

Junior World Trade Association
465 California Street
San Francisco, CA 94104

Speak
1329 Seventh Avenue
San Francisco, CA 94122
Attn: Ed Weil

BUSINESSES

Pacific Gas and Electric Company
Land Department
77 Beale Street
San Francisco, CA 94105
Attn: Melvin Youngblood

The Emporium
835 Market Street
San Francisco, CA 94103
Attn: George Paulsen

INDIVIDUALS

A. R. Roderick
1351 La Playa
San Francisco, CA 94122

XII. BIBLIOGRAPHY

Arthur D. Little, Inc. Commercial and industrial activity in San Francisco: present characteristics and future trends. Report to San Francisco Department of City Planning. June 1975.

Bay Area Air Pollution Control District. Guidelines for air quality impact analysis of projects. Technical Services Division Information Bulletin. San Francisco, June 1, 1975.

Blume, John A., and Associates, Engineers. Seismic safety investigation. San Francisco, June 1974.

Bonilla, M. G. "Preliminary geologic map of the San Francisco South quadrangle and part of the Hunters Point quadrangle, California." U.S. Department of the Interior, Geological Survey. Miscellaneous Field Studies Map MF-211. 1971.

California Air Resources Board. California Air Quality Data. Vol. VI. 1974.

California Department of Finance. Population projections for California counties, 1975-2020. Report 74 P-2. Sacramento, June 1974.

California Division of Mines and Geology. Geologic atlas of California. San Francisco, 1969.

California Energy Resources Conservation and Development Commission. Quarterly fuel and energy summary. Second quarter 1975.

California Solid Waste Management Board. Solid waste generation factors in California. Technical Information Series Bulletin No. 2. Sacramento, July 8, 1974.

California State Water Resources Control Board. Assessment report on City and County of San Francisco water pollution control program. November 1975.

Occupational safety and health act of 1970. Federal Register. Vol. 36, No. 105, May 29, 1971.

San Francisco Department of City Planning. Transportation: The Comprehensive Plan. Adopted April 27, 1972.

_____. The urban design plan for The Comprehensive Plan of San Francisco. May 1971.

San Francisco municipal code. Part II, Chapter II. City planning code.

_____. Part II, Chapter VIII, Section 1, Article 29. Noise ordinance.

Security Pacific National Bank. San Francisco Bay Area report: a study of growth and economic stature of the nine Bay Area counties. April 1971.

U.S. Department of Commerce. Bureau of the Census. 1960 census of population and housing, Final Report PHC(1)-137. Census tracts, San Francisco-Oakland Standard Metropolitan Statistical Area. Washington, D. C.: Government Printing Office, 1962.

_____. 1970 census of population and housing, Final Report PHC(1)-189. Census tracts, San Francisco-Oakland Standard Metropolitan Statistical Area. Washington, D. C.: Government Printing Office, April 1972.

U.S. Environmental Protection Agency. Noise from construction equipment and operations, building equipment, and home appliances. 1971.

Urban Land Institute. Parking requirements for shopping centers. Technical Bulletin No. 53. 1965.

Witheford, David K. Zoning, parking and traffic. Saugatuck, Connecticut: The Eno Foundation. 1972.

APPENDIX A
CITY PLANNING COMMISSION

RESOLUTION NO. 3731

RESOLVED, That Proposal No. Z-50.12.2, an application for a change in Use District Classification of the hereinafter described real property from a First Residential, Second Residential and Commercial District to a Commercial District be, and the same is hereby APPROVED, subject to the filing and approval by the City Planning Commission of stipulations and a covenant affecting the reclassification by the Commission.

PARCEL #1 Presently classified as first residential and second residential with stipulations.

BEGINNING at the point of intersection of the westerly line of Block 7279 and the southerly line of Eucalyptus Drive, said block and drive being as shown upon "Map of Merced Gardens" filed November 7, 1941, in book "O" of Maps of Official Records of the City and County of San Francisco at pages 55 and 56; thence Southerly from said point of beginning along said westerly line to a point distant 130.0 feet perpendicular from the Southerly line of Eucalyptus Drive; thence South 89° 08' 20" East 98.5 feet more or less to a point on the Easterly line of Block 7279; thence Northerly 113 feet more or less along said Easterly line of Block 7279 to a point; thence northerly and westerly on the arc of a curve to the left, said curve having a radius of 20 feet; a central angle of 83° 55' 37" and being tangent to the last mentioned line at the last mentioned point a distance of 29.296 feet to a point on the southerly line of Eucalyptus Drive; thence along the last mentioned line north 89° 08' 20" West 76.978 feet to the point of beginning. Being a portion of Assessors Block 7279.

PARCEL #2 Presently classified as first residential.

BEGINNING at a point on the southerly line of Eucalyptus Drive 261.733 feet easterly from the intersection of the westerly line of Block 7279 and the southerly line of Eucalyptus Drive, said Block and Drive being as shown upon "Map of Merced Gardens" filed November 7, 1941, in Book "O" of Maps of Official Record of the City and County of San Francisco at pages 55 and 56; thence from said point of beginning north 89° 08' 20" West along the Southerly line of Eucalyptus Drive for a distance of 86.226 feet to a point; thence westerly and southerly on the arc of a curve to the left, said curve having a radius of 20 feet; a central angle of 91° 09' 21" and being tangent to the last mentioned line at the last mentioned point, a distance of 31.819 feet to a point on the westerly line of Block 7280; thence southerly along the last mentioned line of a point of intersection of the westerly line of Block 7280 with a line parallel with and distant at right angles southerly 100 feet from the southerly line of Eucalyptus Drive; thence south 89° 08' 20" East a distance of 117.916 feet; thence north 69 48' 45" West a distance of 101.5 feet more or less to the point of beginning. Being a portion of Assessors Block 7280.

PARCEL #3 Presently classified as second residential with stipulations.

BEGINNING at a point of intersection of the westerly line of Block 7280 with a line parallel with and distant at right angles southerly 130 feet from the southerly line of Eucalyptus Drive, said Block and Drive being as shown upon "Map of Merced Gardens" filed November 7, 1941, in Book "O" of Maps of Official Records of the City and County of San Francisco at pages 55 and 56; thence from said point of beginning along the westerly line of Block 7279 to the northerly line of Tranquilo Drive; thence easterly along said line for a distance of 82.032 feet to a point; thence easterly and northerly on the arc of a curve to the left, said curve having a radius of 20 feet, a central angle of 86° 19' 43" and being tangent to the last mentioned line at the last mentioned point, a distance of 30.134 feet to a point on the easterly line of Block 7279; thence northerly along said line to a point on said line 130 feet from and perpendicular to the southerly line of Eucalyptus Drive; thence westerly along a line parallel to and distant 130 feet from the southerly line of Eucalyptus Drive 98.5 feet more or less to the point of beginning. Being a portion of Assessors Block 7280.

PARCEL #4 Presently classified second residential with stipulations.

BEGINNING at the point of intersection of the easterly line of Twentieth Avenue with a line parallel with and distant at right angles southerly 100 feet from the southerly line of Eucalyptus Drive, said Avenue and Drive being as shown upon "Map of Merced Gardens", filed November 7, 1941, in Book "O" of Maps of Official Records of the City and County of San Francisco at pages 55 and 56; thence from said point of beginning along said easterly line southerly on the arc of a curve to the left, said curve having a central angle of 14° 02' 20" and a center which lies distant North 88° 25' 20" east 695 feet from the point of beginning, a distance of 170.292 feet to a point, southerly on the arc of a curve to the right, said curve having a radius of 695 feet, a central angle of 33° 07' and being tangent to the last mentioned curve at the last mentioned point, a distance of 401.706 feet to a point, southerly on the arc of a curve to the left said curve having a radius of 615 feet, a central angle of 22° 47' and being tangent to the last mentioned curve at the last mentioned point, a distance of 244.551 feet to a point and south 5° 17' east along a line tangent to the last mentioned curve at the last mentioned point, a distance of 152.116 feet to a point; thence southerly and easterly on the arc of a curve to the left, said curve having a radius of 20 feet, a central angle of 83° 51' 20" and being tangent to the last mentioned course at the last mentioned point a distance of 29.271 feet to a point on the northerly line of Monte Vista Drive; thence along the last mentioned line south 89° 08' 20" east 81.393 feet; thence north 0° 13' 44" west along the line dividing lots 3 and 4 in Block 7280 on said map, a distance of 300.054 feet, thence south 89° 08' 20" east 88.306 feet; thence along a line parallel with and distant at right angles westerly 30 feet from the westerly line of 19th Avenue north 2° 37' 05" east 374.899 feet; thence north 89° 08' 20" west 58.445 feet to a point on the southerly prolongation of the line dividing lots 1 and 5 in said Block 7280; thence along said prolongation and said dividing line north 6° 48' 45" west 302.710 feet; thence along a line parallel with and distant at right angles southerly 100 feet from the southerly line of Eucalyptus Drive north 89° 08' 20" west 117.916 feet to the point of beginning, being a portion of Assessors Block 7280.

PARCEL #5 Presently classified as first residential.

BEGINNING at the point of intersection of the westerly line of 19th Avenue with the line dividing lots 1 and 2 in Block 7280; said Lots and Avenue being as shown upon "Map of Merced Gardens", filed November 7, 1941 in Book "O" of Maps of Official Records of the City and County of San Francisco at pages 55 and 56; thence from said point of beginning southerly along said westerly line of Nineteenth Avenue 420.017 feet; thence North 89° 08' 20" West 30.000 feet; thence North 2° 37' 05" East 374.899 feet; thence North 89° 08' 20" West 58.445 feet; thence North 6° 48' 45" West 41 feet more or less to a point on the aforementioned line dividing lots 1 and 2 of Block 7280; thence South 89° 08' 20" East along said line 95.880 feet to the point of beginning. Being a portion of Assessors Block 7280.

PARCEL #6 Presently classifies as second residential with stipulations

BEGINNING at the point of intersection of southerly line of Tranquilo Drive with the westerly line of Block 7281, said Drive and Block being as shown upon "Map of Merced Gardens", filed November 7, 1941, in Book "O" of Maps of Official Records of the City and County of San Francisco at pages 55 and 56; thence along said Westerly line southerly on the arc of a curve to the right said curve having a center, which bears north 77° 29' 33" west 545 feet from the point of beginning, a distance of 47.489 feet to a point and southerly on the arc of a curve to the left, said curve having a radius of 765 feet and being tangent to the last mentioned curve at the last mentioned point, a distance of 239.991 feet to a point; thence south 83° 47' east 100.791 feet to a point on the westerly line of Twentieth Avenue; thence along said westerly line northerly on the arc of a curve to the right, said curve having a center which lies distant north 88° 30' 49" east 665 feet from the last mentioned point, a distance of 200.364 feet to a point and northerly on the arc of a curve to the left, said curve having a radius of 645 feet a central angle of 4° 37' 55" and being tangent to the last mentioned curve at the last mentioned point, a distance of 52.144 feet to a point; thence northerly and westerly on the arc of a curve to the left, said curve having a radius of 20 feet, a central angle of 102° 00' 25" and being tangent to the last mentioned curve at the last mentioned point, a distance of 35.607 feet to a point on the southerly line of Tranquilo Drive; thence along the last mentioned line north 89° 08' 20" west 77.546 feet to the point of beginning, being a portion of Assessor's Block 7281.

PARCEL #7 Presently classified as second residential with stipulations.

BEGINNING at a point on the westerly boundary of Block 7281 as shown upon the "Map of Merced Gardens" filed November 7, 1941 in Book "O" of Maps of Official Records of the City and County of San Francisco at pages 55 and 56, said point being distant 197.277 feet southerly along said westerly boundary from the northwesterly corner of said Block 7281; thence north 83° 47' west 440.750 feet; thence north 70° 30' west 168 feet; thence north 2° 37' 05" east 9.385 feet; thence northerly along the arc of a curve to the left of radius 220 feet; said curve being tangent to the last mentioned course, a distance of 106.694 feet; thence northerly along the arc of a curve to the right of radius 220 feet; said curve being tangent to the last mentioned curve, a distance of 85.147 feet; thence north 2° 59' 37" west 183.370 feet; thence south 89° 08' 20" east 427.442 feet; thence south 0° 51' 51" west 103.729 feet; thence south 89° 08' 20" east 273.382 feet more or less to the westerly line of the aforementioned "Map of Merced Gardens"; thence southerly along the westerly line of said map 372.961 feet more or less to the point of beginning, being a portion of Assessor's Block 7201.

PARCEL #8 Presently classified as second residential with stipulations.

BEGINNING at a point on the westerly boundary of Block 7281 as shown on "Map of Merced Gardens", filed November 7, 1941 in Book "O" of Maps of Official Records of the City and County of San Francisco at pages 55 and 56, said point being distant 197.277 feet southerly along said westerly boundary from the northwesterly corner of said Block 7281; thence north 83° 47' west 440.750 feet; thence North 70° 30' west 168 feet; thence south 2° 37' 05" West 131 feet; thence southerly along the arc of a curve to the right of radius 370 feet, said curve being tangent to the last mentioned course a distance of 221.246 feet; thence South 2° 37' 05" West 229 feet more or less to the boundary of a parcel of land reclassified for commercial use and described in Resolution No. 3356 passed by the City Planning Commission of the City and County of San Francisco on January 8, 1948; thence North 79° 37' 05" East along said boundary of said parcel of land 53 feet, more or less, to an angle point of said boundary; thence North 10° 22' 55" West along said boundary 230.918 feet; thence South 87° 22' 55" East along said boundary 771.633 feet; thence South 5° 17' East along said boundary 94.791 feet; thence South 89° 08' 20" East 55.318 feet; thence North 5° 17' West 230.425 feet to a point on the Easterly line of Twentieth Avenue as shown on the first mentioned "Map of Merced Gardens"; thence Northerly along the arc of a curve to the right of radius 615 feet; said curve being tangent to the last mentioned course at the last mentioned point a distance of 33.987 feet; thence North 83° 47' West 151.285 feet to the Westerly boundary of the aforementioned Block 7281; thence northerly along the Westerly line of said Block 90.203 feet to the point of beginning. Being a portion of Assessor's Block 7281.

PARCEL #9 Presently classified as second residencial with stipulations

BEGINNING at the point of intersection of the southerly line of Monte Vista Drive with a line parallel with and distant at right angles westerly 100 feet from the westerly line of 19th Avenue said Drive and Avenue being as shown upon "Map of Merced Gardens" filed November 7, 1941 in Book "O" of Maps of Official Records of the City and County of San Francisco at pages 55 and 56; thence from said point of beginning southerly along a line parallel with and distant at right angles westerly 100 feet from the westerly line of 19th Avenue a distance of 790.699 feet; thence north 87° 22' 55" west 285 feet; thence south 42° 22' 55" east 76 feet to a point; thence southeasterly along the arc of a curve to the left of radius 133 feet; a central angle of 45° which is tangent to the last mentioned course at the last mentioned point, a distance of 104.458 feet; thence easterly along an arc of a curve to the left of radius 68 feet a central angle of 42° 37' 45" which is tangent to the last mentioned curve at the last mentioned point, a distance of 50.593 feet; thence north 49° 59' 20" east 87.897 feet; thence south 87° 22' 55" east 116.366 feet more or less to a point distant 10.000 feet westerly at right angles from the westerly line of 19th Avenue; thence north 2° 37' 05" east 723.500 feet; thence south 87° 22' 55" east 10.000 feet; to the westerly line of Nineteenth Avenue; thence north 2° 37' 05" east along the westerly line of Nineteenth Avenue 61.32 feet; thence northerly and westerly along a curve to the left of radius 20 feet and tangent to the last mentioned line a distance of 32.029 feet to a point on the southerly line of Monte Vista Drive; thence north 89° 08' 20" west along the southerly line of Monte Vista Drive 79.38 feet more or less to the point of beginning, being a portion of Assessors Block 7201.

PARCEL #10 Presently classified as second residential with stipulations.

BEGINNING at a point which bears south 60° 14' 05" West and is distant 1230.998 feet from the point of intersection of the westerly line of Nineteenth Avenue and the southerly line of Monte Vista Drive, said Avenue and Drive as shown on the "Map of Merced Gardens" filed November 7, 1941 in Book "O" of Maps of Official Records of the City and County of San Francisco, at pages 55 and 56; thence from said point of beginning north 74° 22' 55" west 10 feet; thence south 2° 37' 05" west 40 feet; thence north 15° 37' 05" east 38 feet more or less to the point of beginning; being a portion of Assessors Block 7201.

PARCEL #11 Presently classified as commercial with stipulations.

BEGINNING at the point of intersection of the southerly line of Monte Vista Drive with a line parallel with and distant at right angles westerly 100 feet from the westerly line of 19th Avenue, said Drive and Avenue being as shown upon "Map of Merced Gardens" filed November 7, 1941, in Book "O" of Maps of Official Records of the City and County of San Francisco at pages 55 and 56; thence from said point of beginning along said southerly line north 89° 08' 20" west 149.725 feet; thence north 5° 17' west 94.791 feet; thence north 87° 22' 55" west 771.633 feet; thence south 10° 22' 55" east 230.918 feet; thence south 79° 37' 05" west 53 feet; thence south 2° 37' 05" west 514.486 feet; thence south 74° 22' 55" east 10 feet; thence south 15° 37' 05" west 38 feet; thence south 2° 37' 05" west 50.514 feet; thence northeasterly along the arc of a curve to the left of radius 138 feet the center of which bears north 12° 21' 07" west from the last mentioned point, a distance of 42.575 feet; thence easterly along the arc of a curve to the right of radius 362 feet a central angle of 32° oo' 39" which is tangent to the last mentioned curve at the last mentioned point a distance of 202.247 feet; thence south 88° 01' 03" east 184.601 feet; thence easterly along the arc of a curve to the right of radius 287 feet having a central angle of 45° 38' 08" which is tangent to the last mentioned course at the last mentioned point a distance of 228.593 feet; thence south 42° 22' 55" east 55 feet; thence south 87° 22' 55" east 285 feet more or less to a point distant 100 feet at right angles from the westerly line of 19th Avenue; thence north 2° 37' 05" east 790.699 feet more or less to the point of beginning, being a portion of Assessor's Block 7201.

PARCEL # 12 Presently classified as commercial with stipulations

BEGINNING at a point on the westerly boundary of Block 7279 and distant 405.520 feet southerly along said boundary from the southerly line of Eucalyptus Drive, said Block and Drive as shown upon the "Map of Merced Gardens" filed November 7, 1941 in Book "O" of Maps of Official Records of the City and County of San Francisco; thence from said point of beginning north 89° 08' 20" west 273.382 feet; thence north 0° 51' 40" west 103.729 feet; thence north 0° 51' 51" west 166.208 feet; thence easterly along a line parallel with and distant at right angles southerly 130 feet from the southerly line of Eucalyptus Drive a distance of 220 feet more or less to the westerly line of the said "Map of Merced Gardens"; thence southerly along said line to the point of beginning, being a portion of Assessors Block 7201.

PARCEL #13 Presently classified as commercial with stipulations.

BEGINNING at the point of intersection of the southerly line of Eucalyptus Drive and the easterly line of Block 7201 according to the "Map of Merced Gardens" filed November 7, 1941 in Book "O" of Maps of Official Records of the City and County of San Francisco, at pages 55 and 56; thence from said point of beginning westerly along said line of Eucalyptus Drive 213.475 feet to a point; thence southerly along a line dividing lots 13 and 13E of said block a distance of 130 feet; thence along a line parallel with and distant at right angles southerly 130 feet from the southerly line of Eucalyptus Drive a distance of 220 feet more or less to a point on the easterly line of Block 7201; thence northerly along said line a distance of 131 feet more or less to the point of beginning. Being a portion of Assessor's Block 7201.

PARCEL #14 Presently a recorded street.

BEGINNING at a point on the southerly line of Eucalyptus Drive, South 89° 08' 20" East 76.978 feet from the northwest corner of Block 7279, said Block and Drive as shown on "Map of Merced Gardens" filed November 7, 1941, in Book "O" of Maps of Official Records of the City and County of San Francisco at pages 55 and 56, said point of beginning being the beginning of a cruve of radius 20 feet; thence along the easterly and southerly boundaries of said Block 7279 to southwesterly corner of said Block; thence southerly along the westerly boundary of said "Map of Merced Gardens" 50.638 feet more or less to the northwest corner of Block 7281 as shown on the aforementioned "Map of Merced Gardens"; thence along the northerly and easterly boundaries of said block a total distance of 379.251 feet; thence south 83° 47' East 50.494 feet more or less to the westerly boundary of Block 7280 as shown on the aforementioned "Map of Merced Gardens"; thence northerly along the westerly boundary of said Block 7280 to its point of tangency with the southerly line of Eucalyptus Drive; thence North 89° 08' 20" West along the southerly line of Eucalyptus Drive 98.528 feet to the point of beginning, being a portion of Tranquilo Drive and Twentieth Avenue as shown on the aforementioned "Map of Merced Gardens".

PARCEL #15 Presently a recorded street.

BEING that portion of Monte Vista Drive between the westerly line of Nineteenth Avenue and the southerly prolongation of the easterly line of Twentieth Avenue, all as shown on the "Map of Merced Gardens" filed November 7, 1941 in Book "O" of Maps of Official Records of the City and County of San Francisco, at pages 55 and 56.

Said fifteen parcels being taken together constitute the same described area as in the published notice of proposal to change zoning classification No. Z 50.12.2 dated January 27, 1950 posted by the City Planning Commission of the City and County of San Francisco.

RESOLVED, FURTHER, That the effective date of this resolution shall be the date of approval of such covenant by the City Planning Commission.

I hereby certify that the foregoing resolution was adopted by the City Planning Commission at its regular meeting on March 16, 1950.

I hereby further certify that a signed and certified copy of a covenant running with the land affected and a preliminary site plan of the proposed development were approved by the City Planning Commission on April 27, 1950, which date is therefore the effective date of the foregoing resolution.

Joseph Mignola, Jr.,
Secretary

Ayes: Commissioners Brooks, Kilduff, Lopez, Prince, Rousseau, Torregano, Perrin
Noes: None
Absent: None
Passed: March 16, 1950

APPENDIX B

CITY PLANNING COMMISSION

RESOLUTION NO. 5490

WHEREAS, The City Planning Commission on October 5, 1961, December 7, 1961, January 18, 1961 and January 25, 1962 heard Application No. C - CU-61.37 of the Stonestown Development Corporation for a Conditional Use under Section 304 of the City Planning Code for MODIFICATION OF STIPULATIONS in a C-2 district on the property described as follows:

Stonestown Shopping Center, West of 19th Avenue, and South of Eucalyptus Drive; Lots 3 and 4 in Assessor's Block 7295; and a portion of Lot 1 in Assessor's Block 7296;

WHEREAS, Said application, as understood by the City Planning Commission and described in the public notice given in this case, requests "modification of stipulations included in Resolution No. 3731 adopted by the City Planning Commission on March 16, 1950 and covenants executed pursuant thereto so as:

1. To include as part of the Stonestown site as defined in that Resolution an existing parking area that constitutes the major portion of a 6-acre parcel adjoining that site to the northwest and presently occupied by an office building, service station and parking area; the purpose of such inclusion being to permit construction of additional commercial floor area in the Stonestown site within the requirement of Resolution No. 3731 that there be two square feet of parking area provided for each square foot of commercial floor area in the site; and

2. To permit that additional commercial floor area to be constructed at specific and/or undetermined locations within the Stonestown site; as well as to permit certain commercial floor area authorized by Resolution No. 3731, but not yet constructed, to be constructed at locations other than as required by that Resolution.

WHEREAS, To the extent additional building floor area is authorized herein the application proposes a limited enlargement of certain existing or previously authorized buildings at locations and in a manner that can be viewed as a reasonable and logical expansion of the Stonestown Shopping

Center authorized and constructed under Resolution No. 3731;

WHEREAS, Automobile parking in the ratio of two square feet of parking area for each square foot of additional floor area will be available within the above mentioned six-acre parcel, identified as "Parcel 2" on the map incorporated in this Resolution as Exhibit A;

WHEREAS, The principal issues of concern in connection with the additional floor area herein authorized relate to the adequacy of parking and the need for instituting certain traffic control measures within the Shopping Center;

WHEREAS, It appears that any increased demand for parking that would result from construction of this additional floor area would be met by Parcel 2 rather than by overflow into the surrounding residential districts and that traffic control measures can be instituted as needed;

THEREFORE BE IT RESOLVED, That the City Planning Commission finds that the conditions set forth in Section 304 of the City Planning Code are met for approval of said application and modification of the stipulations of Resolution No. 3731 and covenant executed pursuant thereto to the extent hereinafter set forth, and no further:

1. The Stonestown site as defined in Resolution No. 3731 is hereby expanded to include the above mentioned 6-acre parcel, said parcel being the area reclassified to a Commercial District by Resolution No. 4204 adopted by the City Planning Commission on October 22, 1953. Said parcel consists of the sites of the Prudential Building and Chevron Station and a parking area, which parking area is identified as "Parcel 2", all as shown on a map labeled "Stonestown, Nineteenth Avenue and Winston Drive, San Francisco, California, November 18, 1959" submitted to the Department of City Planning on September 20, 1961 and incorporated herein by reference as Exhibit A.

2. The 208,100 square foot area of the parking area identified as "Parcel 2" may be considered as parking area provided for additional building floor area herein or subsequently authorized on the basis of the requirement of Resolution No. 3731 that there be two square feet of area available for automobile parking, automobile circulation landscaping and pedestrian circulation for every one square foot of floor space devoted to commercial activity. In applying this parking requirement to construction hereafter undertaken in the Stonestown Shopping Center, the floor space devoted to commercial activity shall be construed

as the gross floor area of said construction, excluding only such floor area as is used for loading and vehicular parking.

3. By an Agreement entered into on January 8, 1953 by the Stonestown Development Corporation and the City Planning Commission, said Agreement being entitled "Joint Agreement Between The Stonestown Development Corporation and the Department of City Planning, City and County of San Francisco Concerning the Calculation of the Stipulated Parking Ratio in the Area Reclassified by Resolution 3731 of the Planning Commission" it was determined that as of that date there was 1,466,908 square feet of parking area and 734,024 square feet of floor space devoted to commercial activity and the Stonestown Shopping Center as authorized under Resolution No. 3731. It is stated by the applicant in connection with the present application that since January 8, 1953 there has been no change in the Shopping Center as calculated for purposes of that Agreement other than that the Auto-Torium building has subsequently been constructed with a coverage 500 square feet in excess of that therein contemplated.

4. To determine the additional floor area that may be authorized on the basis of the Parcel 2 parking area, said parking area shall first be reduced by the 1,140 square foot deficiency determined in the 1953 Agreement and the 500 square feet excess coverage of the Auto-Torium building. The Area of said parking area which may be used for calculation in this Resolution is thereby reduced to 206,460 square feet, on the basis of which 103,230 square feet of floor area may be authorized.

5. That floor area must be reduced for calculations in this Resolution to 102,730 square feet to adjust for the 500 square feet by which the floor area of the Auto-Torium exceeded the floor area calculated for it in the 1953 Agreement.

6. The two buildings constructed in the parcel reclassified by Resolution No. 4204 shall be considered floor area authorized on the basis of the parking area in Parcel 2. These buildings are the Prudential Building, with a floor area of 8,000 square feet, and the Chevron Service Station, with a floor area of 800 square feet. After deducting this 8,800 square feet from the 102,730 square feet arrived at in condition no. 5 above, it is determined that 93,930 square feet of additional floor area may be authorized on the basis of the Parcel 2 parking area.

7. Additional floor area is hereby authorized by reference to Exhibit A as follows:

a) A 19,390 square foot second floor for the already authorized one-floor addition to the City of Paris (formerly Butler) building.

b) A 50,000 square foot expansion of the Emporium building.

c) A 14,390 square foot sixth floor to be added to the existing medical building.

d) The remaining 10,150 square feet of floor area for which parking area is available in Parcel 2 shall be added at such locations and in such a manner as the City Planning Commission shall authorize when a plan therefor has been submitted by subsequent Conditional Use application by the Stonestown Development Corporation.

8. To facilitate the movement of traffic on public streets through, to or along the surrounding residential districts, Stonestown Development Corporation shall provide and maintain within the Stonestown Shopping Center such traffic control devices or measures as may be recommended by the Department of Public Works, Bureau of Engineering, Division of Traffic Engineering, City and County of San Francisco, and Stonestown Development Corporation shall concur in the installation of such traffic control devices or measures as shall be recommended to the Board of Supervisors by the Department of Public Works for public streets within or adjoining the Shopping Center. Such devices or measures may include, but need not be limited to, permitting vehicles to move only off, not onto, Winston Drive at the parking area entrances immediately east of the J. Magnin store and the Walgreen Drug store; similar one-way controls at other points; and automatic traffic directional control equipment such as differential counters and directional signs.

9. The Stonestown Development Corporation shall take all possible measures to restrict all-day employee parking to the parking area in Parcel 2.

10. Nothwithstanding the paragraphs numbered 11 and 12 in the covenant executed pursuant to Resolution 3731, no road, street or driveway negotiable by automotive vehicles shall be opened into Eucalyptus Drive at any point west of 20th Avenue.

11. No advertising signs shall be permitted in the Stonestown site as defined in Resolution No. 3731 or as hereby expanded other than such necessary identifying and directional signs as are approved by the City Planning Commission as in harmony with the general development of the Stonestown Shopping Center and surrounding residential areas.

(b) Final plans for the additional floor area herein authorized shall be subject to approval by the City Planning Commission.

AND BE IT FURTHER RESOLVED, That the City Planning Commission does not construe either Resolution No. 3731 and covenant executed pursuant thereto or the Agreement of January 8, 1953 to authorize a parking deck of such magnitude as 196,960 square feet on the lot adjoining the authorized building north of the Emporium or additional floor area of 98,480 square feet in said authorized building on the basis of such a deck, and that part of the present Application that requests authorization of such a deck by further modification of stipulations at this time is hereby kept under advisement until May 17, 1962 for the submission by the applicant of a more specific proposal with regard to the size and location of said deck and the additional commercial space that might thereby be permitted under the parking requirement hereinabove set forth.

I hereby certify that the foregoing Resolution was adopted by the City Planning Commission at its regular meeting on January 25, 1962.

Thomas G. Miller
Secretary

APPENDIX C

TRANSPORTATION IMPACT REPORT

Prepared by Barton-Aschman Associates

1.

ENVIRONMENTAL SETTING

Barton-Aschman Associates has been conducting traffic and parking surveys at Stonestown Shopping Center for the past three years. The purpose of this report is to present the results of these surveys, update them to 1976 conditions with the existing center and project traffic and parking conditions after the proposed expansion of the center.

Automobile Travel

In February, 1973 Barton-Aschman Associates conducted day-long traffic counts at Stonestown Shopping Center. Both a weekday count and a Saturday count were taken to identify travel demand and travel patterns at the shopping center. These counts were then compared to sales data and adjusted to represent Design Day (the 30th highest day of the year) and Peak Day (the highest traffic day of the year) conditions.[1]

The Design Day represents that level of traffic activity typically used for design purposes. Only 30 days per year would experience traffic demands higher than that of the Design Day. These 30 days are likely to occur in the period between Thanksgiving and Christmas. The 30th highest day of the year represents conditions that could occur on special sales days such as periods immediately proceeding Easter, Mother's Day, back-to-school sales, etc. Over 300 days per year would experience less traffic than the Design Day but it is believed that planning must be done on a basis of Design Day traffic. This assures that shopping center access and circulation system will be able to accommodate both existing and future traffic.

The Peak Day of the year typically occurs immediately prior to Christmas. The Saturday before Christmas or the Friday or Saturday after Thanks-

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[1] In February 1973 the City of Paris/Liberty House was still in operation. The trip generation of the entire center was reduced for the purposes of this report to reflect the existing center with this building vacant.

giving are often the absolute peak shppping center traffic days of the year. However because these are not normal business days, they do not represent peak total traffic days of the year. The busiest total traffic day in the vicinity of the shopping center is more likely to be the Friday before Christmas or another weekday two or three days before Christmas (not Christmas Eve).

California Department of Transportation has counted suburban regional shopping centers in the Bay Area[2] and these counts together with summary counts by Caltrans[3], Arizona[4] and Barton-Aschman Associates[5] suggest the following trip generation rates for Design Days and Peak Days:

Suburban Center Design Day	40-50 auto trips/1000 sq. ft. GLA[6]
Suburban Center Peak Day	60-70 auto trips/1000 sq. ft. GLA

Since there are very few "urban centers" similar to Stonestown, one must be careful in merely directly applying the above trip generation factors. Because urban centers have higher walk-in, bicycle and transit patronage, the automobile trip generation is lower. Calculations on a person-trip (rather than an auto-trip) basis have been made for proposed urban centers in Santa Rosa, Oakland, Pasadena and Santa Monica with the following results:

Urban Center Design Day	22-36 auto trips/1000 sq. ft. GLA
Urban Center Peak Day	40-45 auto trips/1000 sq. ft. GLA

Table 1 uses the highest end of the ranges shown above to calculate the existing trip generation demands at Stonestown. On a Design Day, Stonestown generates 25,200 auto trips; while on the Peak Day of the year, a total generation of 31,500 would be expected. Aerial photos of parking accumulation on Average Days (the 150th highest day of the year), Design Days and Peak Days suggest that the center now experiences higher than normal activity on Average Days and lower than normal activity on Design and Peak Days. Stonestown does not seem to experience the high fluctuation in traffic that other centers experience. The Design and Peak Day estimates described above

[2]Tenth Progress Report on Trip Ends Generation, CalTrans, District 4, July, 1975, Study 157.

[3]Second Progress Report on Traffic Generation, CalTrans, District 11, December, 1972.

[4]Trip Generation by Land-Use, Maricopa Assocaition of Governments, April, 1974.

[5] BAA counts taken at SunValley Center (Concord, 1973 Christmas), Eastridge Center (San Jose 1972,73,74), Southland (Hayward, 1973 Christmas), Oakbrook (Oak Brook, Illinois, 1975).

[6]GLA = gross leasable area which includes all store area but excludes public areas such as rest rooms, waiting areas, malls, etc.

Table 1
EXISTING TRIP GENERATION AT STONESTOWN SHOPPING CENTER

Design Day

$$701{,}000 \text{ sq. ft. GLA}^{*} \times \frac{36 \text{ auto trips}}{1000 \text{ sq. ft. GLA}} = \simeq 25{,}200 \text{ auto trips/day}$$

Peak Day

$$701{,}000 \text{ sq. ft. GLA} \times \frac{45 \text{ auto trips}}{1000 \text{ sq. ft. GLA}} = \simeq 31{,}500 \text{ auto trips/day}$$

*Size of existing center without City of Paris/Liberty House

then would represent the maximum range of expected fluctuation.

Design Day traffic estimates will be used throughout this report as the basis for identifying potential problem areas and mitigating measures. Table 2, p 119, shows the hourly fluction of traffic to/from the center.

Figure 1, p 120, shows the existing directions of approach for shopping traffic entering the Stonestown Shopping Center. The major streets accommodating traffic headed to/from the shopping center are Nineteenth Avenue, Winston Drive and, to a lesser extent, Eucalyptus Drive and Lake Merced Boulevard which intersects Winston Drive west of the shopping center.

The Transportation Element of the San Francisco Master Plan identifies major thoroughfares in the vicinity of Stonestown Shopping Center. The only major thoroughfare adjacent to the center is Nineteenth Avenue. Other major thoroughfares in the vicinity of the center are Junipero Serra Boulevard, Ocean Avenue (east of Nineteenth Avenue), Sloat Boulevard, Lake Merced Boulevard, and Brotherhood Way. There are no secondary thoroughfares in the vicinity of the center and the nearest recreational street is John Muir Drive which is located west of Lake Merced. The nearest freeway to the center is the Southern Freeway which is located approximately 1 and 1/2 miles south of the center (Table 3, p 121 , defines the various classifications of streets).

Streets Serving the Existing Center

A field reconnaissance of the streets serving the existing center was made to determine lane usage and parking conditions. As-built drawings and signing and striping plans for Nineteenth Avenue and Winston Drive were obtained from the City of San Francisco Traffic Engineering Division of the Department of Public Works as were historical traffic count data. Traffic counts at the major intersections adjacent to and within Stonestown were conducted by Barton-Aschman Associates in February, 1973. This data was compared to both earlier and more recent counts made by the City of San Francisco. All traffic data was projected to 1976 conditions using traffic growth factors suggested by the City of San Francisco Traffic Engineering Division(7)

Nineteenth Avenue is a major north-south facility accommodating six lanes of traffic. Through capacity along Nineteenth Avenue has been preserved through the elimination of left turns at most signalized intersections. Traffic projections(8) indicate that Nineteenth Avenue is now

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[7]Meeting with William Marconi, Richard Evans, Scott Shoaf, City of San Francisco Traffic Engineering Division, March 1, 1976.

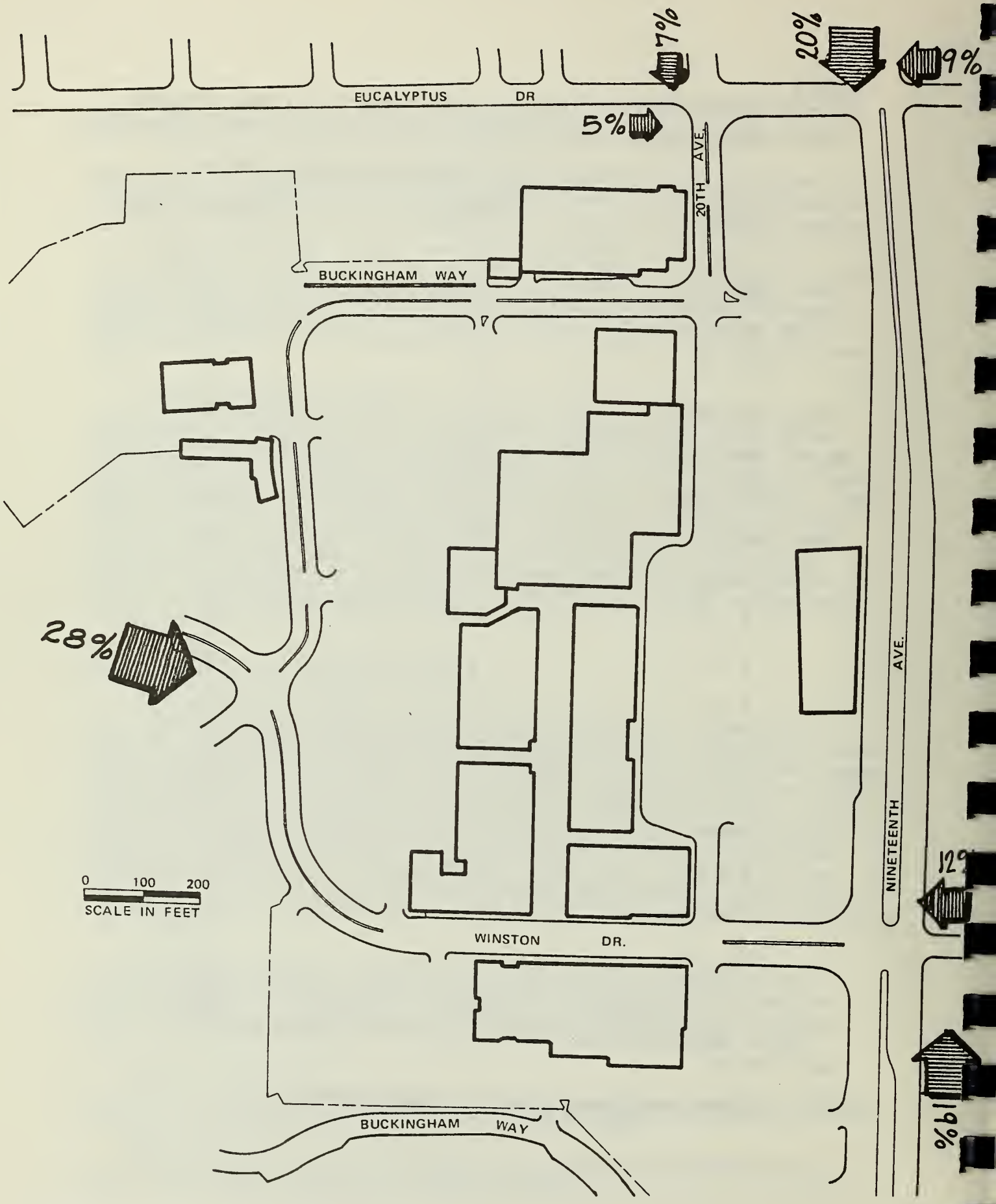
[8]1972-1975 counts were all expanded to represent 1976 conditions so that all data would represent a common base year.

Table 2
SHOPPING CENTER TRAVEL PATTERNS (PROJECTED BASED ON BAY AREA AVERAGES)

Hour	% of Average Daily Traffic	
	Weekday	Saturday/Sunday
6a - 7a	0%*	0%*
7 - 8	1	1
8 - 9	1	2
9 - 10	3	5
10 - 11	6	9
11 - 12n	9	12
12n - 1p	12	12
1 - 2	9	12
2 - 3	9	13
3 - 4	8	12
4 - 5	9	12
5 - 6	9	6
6 - 7	7	2
7 - 8	7	1
8 - 9	6	1
9 - 10	3	0*
10 - 11p	1	0*
TOTAL	100%	100%

*Less than 1%.

NOTE: Includes both auto and service vehicle traffic.



DIRECTIONS OF APPROACH

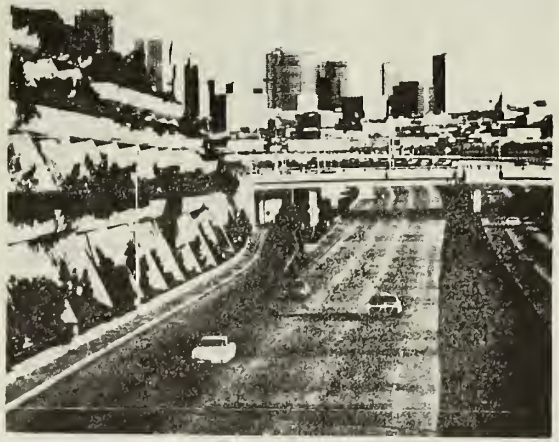
STONESTOWN SHOPPING CENTER

FIGURE 1

Table 3
CLASSIFICATION OF STREETS

CLASSIFICATION OF ELEMENTS

FREEWAYS: limited access, very high capacity facilities; primary function is to carry intercity traffic; they may, as a result of route location, also serve the secondary function of providing for travel between distant sections in the city.



MAJOR THOROUGHFARES: cross-town thoroughfares whose primary function is to link districts within the city and to distribute traffic from and to the freeways: these are routes generally of citywide significance: of varying capacity depending on the travel demand for the specific direction and adjacent land uses.

SECONDARY THOROUGHFARES: primarily intradistrict routes of varying capacity serving as collectors for the major thoroughfares; in some cases supplemental to the major thoroughfare system.

RECREATIONAL STREET: a special category of street whose major function is to provide for slow pleasure drives, cyclist and pedestrian use; more highly valued for recreational use than for traffic movement. The order of priority for these streets should be to accommodate: 1) Pedestrians, hiking trails or wilderness routes, as appropriate; 2) Cyclists; 3) Equestrians; 4) Automobile scenic driving. This should be slow and consistent with the topography and nature of the area. There should be adequate parking outside of natural areas.

COLLECTOR STREETS: relatively low-capacity streets serving local distribution functions primarily in large, low-density areas, connecting to major and secondary thoroughfares. To be identified in area plans.

LOCAL STREETS: all other streets intended for access to abutting residential and other land uses, rather than for through traffic; generally of lowest capacity.

RELATIONSHIP BETWEEN FUNCTION AND PHYSICAL DESIGN: no rigid design standards can be established on the basis of the functional categories established above, although higher capacities will generally be associated with freeways and major thoroughfares. Capacities must be determined on the basis of the level of traffic demand, the space available for traffic and the noture of the surrounding environment.

SOURCE: Transportation Element, Comprehensive Plan of the City and County of San Francisco.

accommodating approximately 46,700 vehicles per day adjacent to Stonestown Shopping Center.

A comparison of both weekday and weekend traffic counts on file with the City of San Francisco indicated that the most heavily traveled period for Nineteenth Avenue traffic was 4:30 p.m. - 5:30 p.m. on weekday afternoon. This weekday afternoon period had a higher travel demand than any time period on Saturday or Sunday. This was also the case with other streets in the area and therefore the 4:30 p.m. - 5:30 p.m. period will be used in the impact analyses presented later in this report.

Table 4, p 123, shows the hourly fluctuation of northbound and southbound traffic along Nineteenth Avenue. Figure 2, p 124, shows that the 4:30 - 5:30 p.m. period on a weekday afternoon accommodates 2260 vehicles southbound and 1620 vehicles northbound along Nineteenth Avenue adjacent to the site. The travel demand shown in Figure 2 also illustrates that southbound left-turns are prohibited at Winston Drive/Nineteenth Avenue. The northbound left-turns toward the shopping center are accommodated in dual left-turn lanes which were provided by the City in late 1974. Prior to this improvement, only a single left-turn lane was available for traffic entering the shopping center. It is possible that the provision of the dual left turn lanes may have shifted travel patterns in the area.

Figure 2, p. 124, also shows the Level of Service ranking for the three signalized intersections in the vicinity of Stonestown. Level of Service is a term used to describe the operating conditions of a signalized intersection. The Levels vary from A to F with Level A representing uncongested conditions and Level F representing stop-and-go conditions. (See Table 8, p 142, for a more detailed description of Levels of Service.) The Level of Service calculation is based upon green signal time, number of lanes, percent turning traffic and a number of other factors. No such Level of Service calculation can be done for intersections controlled by stop signs and therefore these intersections must be judged subjectively as to their operation. At Stonestown, the stop sign intersections appear to operate as follows:

most congested	1. Buckingham Way & 20th Avenue (N)
	2. Winston Drive & 20th Avenue
	3. Eucalyptus Drive & 20th Avenue
	4. Winston Drive & Buckingham Way
	5. Buckingham Way & 19th Avenue
least congested	6. Buckingham Way & 20th Avenue (S)

The Traffic Engineering Division of the City of San Francisco does not have any specific plans for major roadway improvements in the vicinity of Stonestown Shopping Center. The transportation element of the San Francisco Master Plan however does contain a statement concerning Nineteenth Avenue:

> "This heavily trafficked street (Nineteenth Avenue) should ultimately be rebuilt as a parkway with the same capacity and similar design as Park-Presidio Boulevard. Simultaneous measures should be taken to eliminate through traffic on

Table 4
NINETEENTH AVENUE TRAFFIC PATTERNS -- WEEKDAYS

Hour	% of Average Daily Traffic Northbound	Southbound
7a - 8a	6.5%	5.5%
8 - 9	6.6	6.1
9 - 10	5.6	5.4
10 - 11	5.5	5.8
11 - 12 noon	6.2	6.0
12n - 1p	6.3	6.5
1 - 2	6.4	6.6
2 - 3	7.3	6.9
3 - 4	7.5	7.2
4 - 5	7.4	8.5
5 - 6	7.6	8.1
6 - 7	5.6	6.9
7 - 8	4.4	5.2
8 - 9	3.5	3.4
9 - 10	4.3	3.2
10 - 11	2.8	2.5
11 - 12m	1.6	1.7
12m - 1a	0.9	0.9
1 - 2	0.5	0.5
2 - 3	0.3	0.4
3 - 4	0.2	0.1
4 - 5	0.3	0.2
5 - 6	0.4	0.4
6 - 7a	2.1	2.0
	100.0%	100.0%

1976 Average Daily Traffic

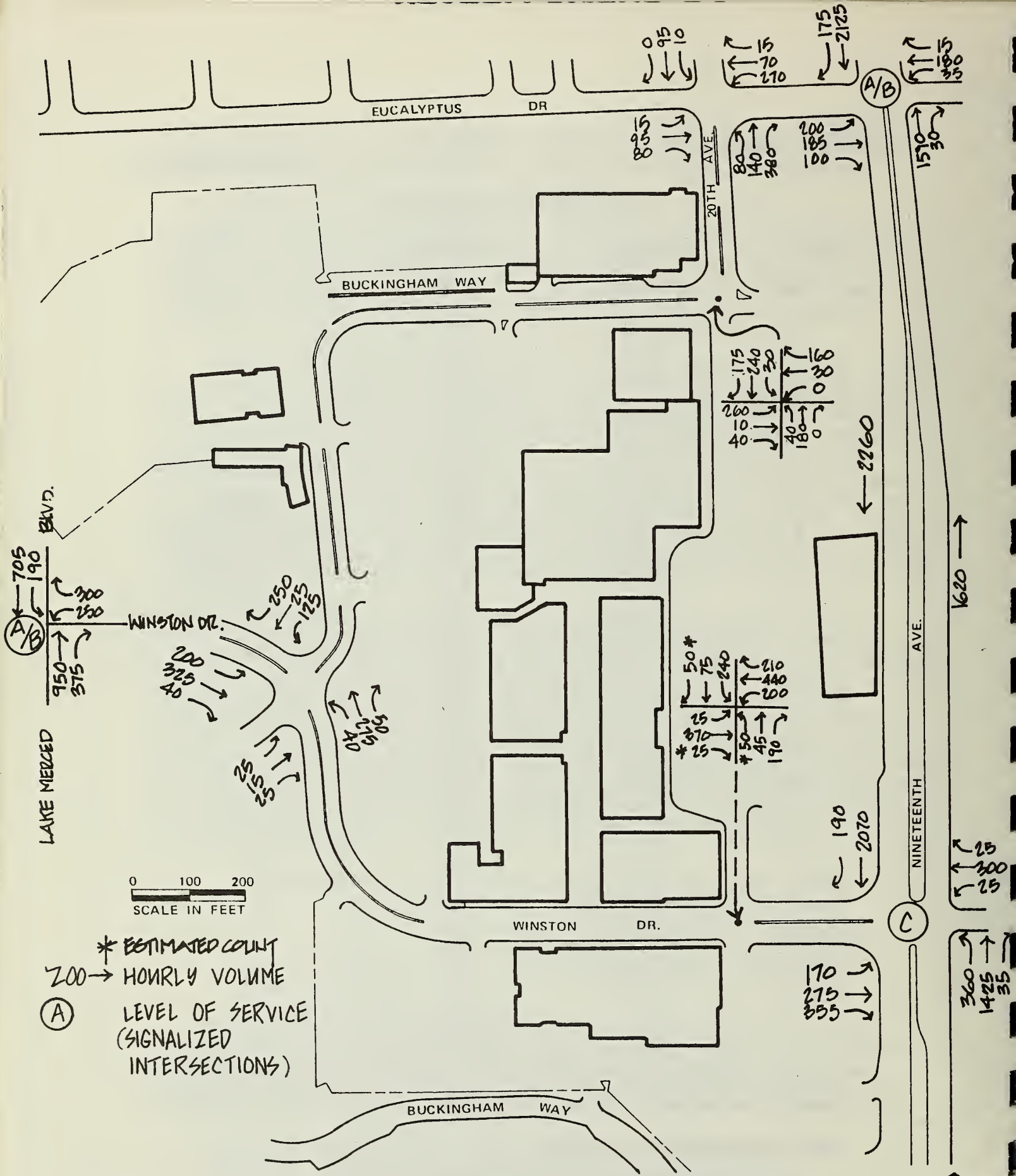
NB = 20,100 vpd.
Sb = 26,580 vpd.

Total ADT = 46,680 vpd.*

*1. Based on expansion of January 1978 count by City of San Francisco.

2. Count factored by 1% per year.

3. Count taken at 19th Avenue South of Sloat Boulevard.



1976 TRAFFIC DEMAND - 4:30 - 5:30 PM - WEEKDAYS

FIGURE 2

parallel streets."[9]

As mentioned above, no specific time table nor improvement plans have yet been established for the implementation of a Nineteenth Avenue Parkway.[10]

Winston Drive is a east-west street bisecting the shopping center. This street not only brings traffic to the shopping center but it also serves as a portion of the shopping center's circulation network. Winston Drive is a public street. It is not designated as a secondary thoroughfare in the Transportation Element of the San Francisco Master Plan. East of Nineteenth Avenue, Winston Drive is a four-lane street. In the portion of Winston Drive between Nineteenth and Twentieth Avenues the roadway widens to provide 38 feet in each direction. Three lanes in each direction are provided.

West of Twentieth Avenue, Winston Drive accommodates two lanes of traffic in each direction and parking is along the north curb immediately west of Twentieth Avenue and then along both the north and south curbs west of the main mall cross walk across Winston Drive. West of Buckingham Way, Winston Drive is a 60-foot street.

Winston Drive has a 1976 average daily traffic demand of 12,300 vehicles per day immediately west of Nineteenth Avenue. The intersection of Nineteenth Avenue-Winston Drive and the intersection of Winston Drive-Lake Merced Boulevard are both signalized. Winston Drive-Buckingham Way intersection is controlled by a four-way stop.

Twentieth Avenue is a north-south street located immediately adjacent to the stores on the east side of the center. Between Eucalyptus Drive and Buckingham Way, four lanes (48 feet plus a four-foot wide median) are provided. Two lanes are provided south of Buckingham Way along the entire length of the shopping area. Twentieth Avenue through the shopping center is a private street owned and controlled by the shopping center developer.

Buckingham Way is a 52-foot wide street (24 feet in each direction plus a four-foot wide median) that loops around the north, west and south sides of the Stonestown Shopping Center. In most areas parking is allowed so two lanes of traffic in each direction are not possible. In areas near important intersections, curb parking is prohibited so that two approach lanes can be provided. The land-use along the southwest and southern portions of Buckingham Way is medium- to high-density residential. Detailed counts were not available from the City of San Francisco for Buckingham Way but it is estimated that the average daily traffic demand for the

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[9]The Comprehensive Plan, Transportation Element, City and County of San Francisco, Department of City Planning, Adopted April 27, 1972, page 22.

[10]City of San Francisco meeting, op cit., March 1, 1976.

southern portion of Buckingham Way is less than 5,000 vehicles per day. Buckingham Way is also a private street owned and controlled by the developer of Stonestown Shopping Center.

Lake Merced Boulevard is designated as a major thoroughfare by the Transportation Element of the San Francisco Master Plan. The portion of Lake Merced Boulevard in the vicinity of Winston Drive is a four-lane street accommodating approximately 25,500 vehicles per day. This is an important route for the shopping center because it gathers the residential traffic north of the center along Sunset Boulevard and south of the center in the high density Park Merced area.

Eucalyptus Drive is an important route for the Stonestown Shopping Center because of the location of a traffic signal at Nineteenth Avenue. The portion of Eucalyptus Drive between Nineteenth and Twentieth Avenues carries approximately 20% of the Stonestown traffic on a 60-foot wide cross section. Three eastbound approach lanes are provided at Nineteenth Avenue to accommodate traffic leaving the center. Only one westbound lane is provided between Nineteenth and Twentieth Avenues because parking is located on the north side of the street.

West of Twentieth Avenue, Eucalyptus Drive is a 40-foot wide street with parking allowed on both sides. This section of Eucalyptus Drive appears to be carrying traffic from the immediate neighborhood to Stonestown Shopping Center.

Parking Supply

At the present time there are approximately 2,400 prime, off-street parking spaces provided for customers of Stonestown Shopping Center.[11] An additional 640 parking spaces are provided for employees, customers and long-term parkers west of Buckingham Way in the northwest section of the site. There are also approximately 160 curb parking spaces along Winston Drive and Buckingham Way that could be used by either employees or shopping center customers. These three areas total 3,240 parking spaces available for employees and customers of the center.

The typical suburban shopping center will attempt to provide 5.0 - 5.5[12] spaces per thousand square feet of GLA. Although the present parking supply at Stonestown Shopping Center is slightly less than this range, the high number of walk-in patrons and transit riders make the

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[11] Prime customer spaces are those that are both within close proximity (200-250 feet) of the stores and within a protected off-street parking lot. Other customer spaces (non-prime) are those outside of this distance and those curb spaces located along a street. Employee parking spaces are generally located more than 250 feet from stores.

[12] "Parking Requirements for Shopping Centers" Technical Bulletin No. 53, Washington, D.C., Urban Land Institute, 1965.

existing parking supply more than adequate for peak conditions. The 1962 resolution regarding the development of the center called for two square feet of area to be dedicated to parking and circulation for every one square foot of building area. The present parking supply meets this criterion.

The various parking areas of the Stonestown Shopping Center are now monitored with changable message signs so that when one parking area is filled, patrons can be informed of the capacity conditions and directed to a parking lot where spaces are available.

An October, 1961 parking study conducted for the Stonestown Shopping Center by Wilbur Smith and Associates showed a maximum parking demand of 70% of available supply. This maximum parking demand occurred on a Saturday afternoon. Because October does not typically represent either a Design Day or a Peak Day condition, a 70% occupancy factor indicates a high usage of the facility during off-peak conditions.

A parking occupancy of 80-85% indicates "full utilization" of parking spaces[13]. Because of constant turnover and an occasional car parking in two spaces, seldom can 95 or 100% of a lot be utilized. Therefore when a lot is 80-85% filled, it is considered to be "fully utilized".

Barton-Aschman Associates has been conducting research on peak parking conditions at regional shopping centers across the country for the past three Christmas peaks. Stonestown Shopping Center was one of the centers studied. The surveys were taken on the Friday and Saturday after Thanksgiving, Saturdays before Christmas, and the day following New Years. These days represent the highest traffic and parking demands of the year. The results of these studies for the past three years are as follows:

Date	Total Parking Demand
11-23-73	1,938
11-24-73	2,200
12-15-73	2,002
1-2-74	2,007
11-30-74	1,195
12-23-74	1,887
11-28-75	2,005

Of the seven "Peak Days" listed above, five exceed 80% of the 2400 prime customer spaces available (i.e., those spaces within the lots bounded by Buckingham Way on the north, west and south and by Nineteenth Avenue on the east). On only two Peak Days were the prime customer spaces not "fully utilized." Empty spaces are available in the employee lot in the northwest corner of the site so total parking demand versus supply is not now a problem at Stonestown even on Peak Days.

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[13] Traffic Engineering -- Theory and Practice, Louis J. Pignataro, Prentice-Hall, 1973, page 268.

The empty spaces in the employee lot however would be over 1200 feet from the proposed Bullock's Store and because this exceeds acceptable customer walking distances[14], these empty spaces would not service the new store.

Transit Service

Figure 3 shows the routes for the transit lines that now serve Stonestown Shopping Center. Lines 18 and 28 use Twentieth Avenue and have stops immediately adjacent to the stores. Lines 72 and 70 (when it begins in early 1977) traverse Winston Drive. Lines 17 and 91 in addition to the M Street Car Line all use Nineteenth Avenue past the center.

The Transportation Element of the Comprehensive Plan designates Nineteenth Avenue adjacent to the center as a transit preferential street. No other streets near the center are so designated. A transit preferential street is defined in the Transportation Element as "an important street for transit operations where interference with transit vehicles should be minimized."

Table 5 summarizes the headway information for the routes serving the shopping center; bus times vary from every 5 minutes to every 30 minutes. A count conducted in 1961 indicated that 8% of the people entering Stonestown Shopping Center arrived by bus or street car. Subsequent counts made in February, 1973 found essentially the same transit travel patterns. Although 8% of travel by transit may seem like a fairly small number when compared to a downtown employment center, the combination of 8% arrivals by transit and 11% arrivals on foot make Stonestown Shopping Center the most non-automobile oriented center in California. In fact, research by Barton-Aschman Associates indicates that Stonestown Shopping Center, with 19% arrivals by modes other than the automobile, may be the most non-auto oriented outlying center in the entire nation outside of the State of New York[16]

PEDESTRIANS

The 1973 counts conducted by Barton-Aschman Associates did not include a new pedestrian count; however visual observations were made to check the validity of the 1961 counts. The visual checks indicated that the major

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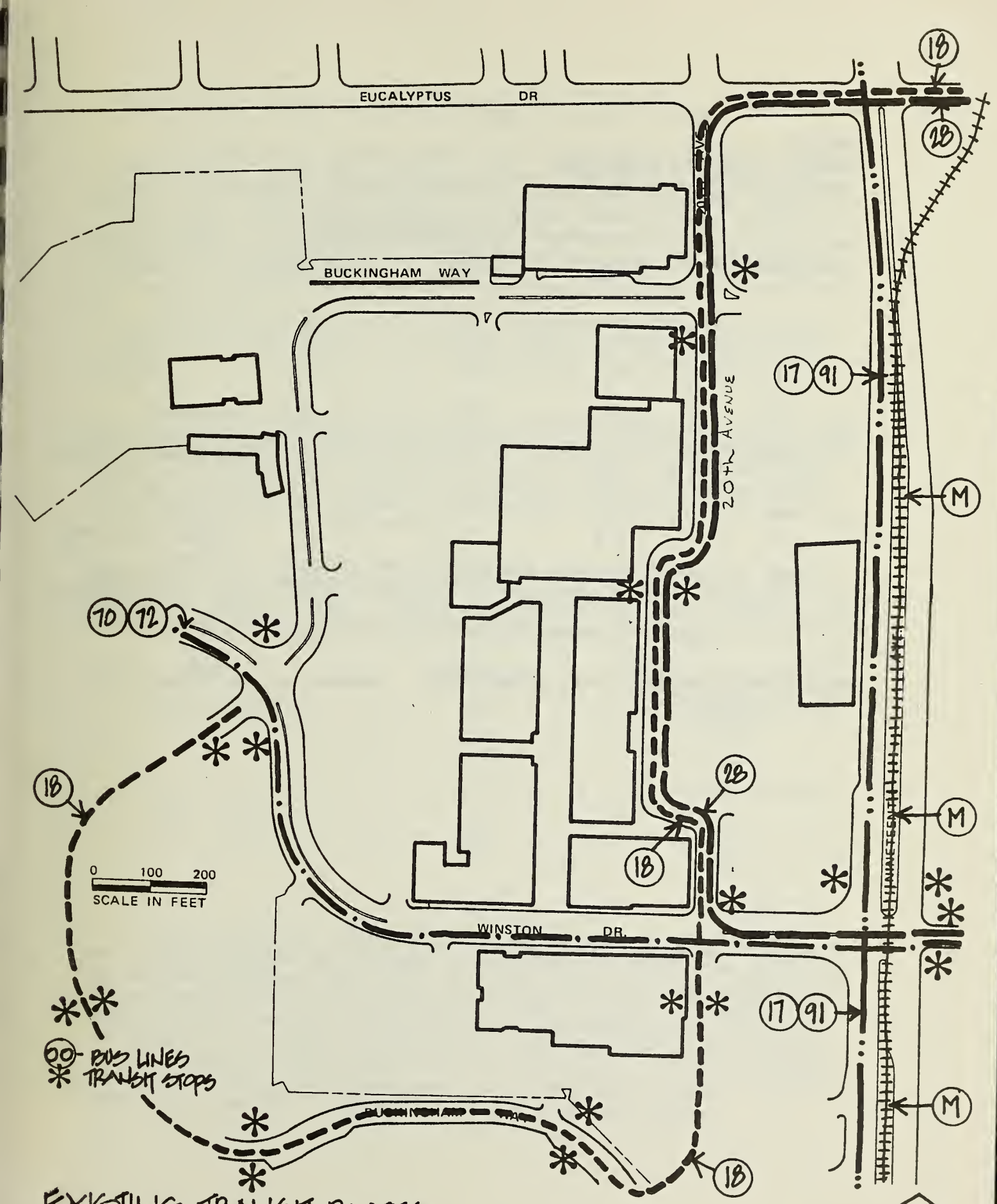
[14] Zoning, Parking and Traffic, Eno Foundation, 1972, page 27.

[15] Data obtained from MUNI schedules and from document entitled San Francisco Municipal Railway, Recapitulation and Analysis of Schedules, Effective October 28, 1975. Data provided by Walter Lewis on March 1, 1976. Updated by telephone interview with James Finn's office on September 8, 1976.

[16] In-house research conducted by BAA offices, presented at International Council of Shopping Centers Annual Meeting, June 1976.



EXISTING TRANSIT ROUTES

STONESTOWN SHOPPING CENTER

FIGURE 3

Table 5
TRANSIT SERVICE TO STONESTOWN

	Headways (minutes)			
Route Number	AM Peak	Midday	PM Peak	Night
17	30	30	30	30
18	16	16	14	20
28	5	12	8	20
70*				(beings early, 1977)
72	8	15	7	15
M	8.5	7.5	6	(street car line)
91	15	20	15	20 (BART shuttle)

*Line 70 will be operational in early 1977. Headways are estimated to be 20 or 30 minutes.

directions of pedestrian approach seemed to remain constant.

The 1961 travel surveys showed that 11% of persons entering Stonestown Shopping Center area entered on foot. The major directions of approach for pedestrians were from the north, south, and east. From the north, most pedestrians entered the shopping center complex along Twentieth Avenue. It is believed that most of these are either students who attend school along Eucalyptus Drive or residents of the neighborhoods north of Stonestown.

Pedestrians to and from the east concentrate at Winston Drive because of the availability of a traffic signal to help them cross Nineteenth Avenue and because of the concentration of transit stops at this point.

Pedestrian approaches to and from the south primarily relate to both San Francisco State University (located to the south) and existing high and medium density residential uses along the south side of the center. Much of the pedestrian travel to and from the south is oriented toward the Stonestown Market located in the southwest quadrant of the Twentieth Avenue-Winston Drive intersection.

In order to evaluate the existing and potential pedestrian impacts on traffic flow, detailed pedestrian counts were taken at Stonestown on Wednesday, March 17, 1976. Counts at the pedestrian mall crosswalk (west of Twentieth Avenue) showed the following pedestrian flows:

Time	Direction	Number of Pedestrians
2:30 - 3:30 p.m.	NB	280
	SB	370
	Total	650 peds/hr.
4:30 - 5:30 p.m.	NB	125
	SB	185
	Total	310 peds/hr.

Also surveyed was the Emporium Department Store entrance onto the mall. This location was surveyed so that potential pedestrian generation by the new department store south of Winston Drive could be estimated. During the mid-afternoon shopping peak (2:30-3:30 p.m.) 410 pedestrians entered and 560 persons left the store via the Emporium mall entrance. The Emporium has a gross leasable area of 280,000 square feet as opposed to the projected 172,000 square feet for the Bullocks. However, because Emporium has three strong entrances and Bullocks would have only two, the pedestrian generation along the mall would likely be similar.

Bicycles

The transportation element ofthe San Francisco Master Plan defines a bike route system for San Francisco. None of the streets in or adjacent to the center are designated as bicycle routes. The closest bicycle route is found along Lake Merced Boulevard 0.5 miles west of the shopping center. Font Boulevard located 0.5 miles south of the center is also designated as a bicycle route. The only other routes even close to the center that are designated as "streets to be improved as bicycle routes" are Junipero Serra Boulevard and Holloway Avenue.

The primary bicycle approach route to/from the center would probably be along Winston Drive from the west connecting to the Lake Merced Boulevard bike routes. Observations at the center did not indicate a large bicycle travel pattern to/from the center. An increase in bicycle parking might encourage more bicycle travel to/from the center.

Service Vehicles

Research by California Department of Transportation[17] indicates that a regional shopping center will generate 0.3 truck trips per 1,000 square feet of gross leasable area. This generation rate suggests that Stonestown Shopping Center now generates approximately 210 truck trips per day.

In terms of the types of vehicles serving a regional shopping center, approximately one-half of the service vehicles will be large vans, panel trucks, pick-up trucks or station wagons. Approximately 49% will be single unit trucks and only 1% will be semi-trucks with trailers. A breakdown of the truck types and an hourly distribution of typical trucking activity in a regional shopping center are shown in Table 6. The travel patterns and truck types shown in Table 6 are based on Barton-Aschman Associates' research of similar-sized urban centers in Illinois, Texas, and Toronto, Ontario, Canada.[18]

Stonestown truck loading activity is now accommodated in a truck tunnel underneath the shopping center. Trucks may enter the tunnel from Buckingham Way on the west side of the center or from Buckingham Way on the south side of the center. The portion of tunnel underneath Winston Drive is a one-way southbound section so that trucks that wanted to serve the Emporium, for example, could not enter at the south entrance and proceed to the north side of the center. Therefore, the portion of

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[17] Tenth Progress Report on Trip End Generation Research Counts, op cit.

[18] In-house research summarized and published in Pasadena Retail Center Traffic Impact Report, Barton-Aschman Associates, July, 1976.

Table 6
SERVICE VEHICLE MOVEMENTS AT STONESTOWN (Predicted Based Upon Bay Area Averages)

Truck Movements by Type

Truck Type	Daily Truck Trips
Semi Truck with Trailer	6
Single Unit Truck	100
Panel, Pickup, Station Wagon	104
TOTAL	210 truck trips per day

Truck Movements by Hour

Hour	% of Daily Trips	
	Inbound	Outbound
7a - 8a	4%	0%
8 - 9	9	9
9 - 10	11	10
10 - 11	11	11
11 - 12n	10	9
12n - 1p	9	9
1 - 2	12	10
2 - 3	10	10
3 - 4	6	9
4 - 5	8	8
5 - 6	6	8
6 - 7	2	4
7 - 8	2	3
TOTAL	100%	100%

the truck tunnel south of Winston Drive basically serves only those stores south of Winston. It is estimated that 70% of the truck movements would occur at the entrance along the west side of the center and only 30% of the truck movements would occur at the southern truck tunnel entrance/exit.

There are two other truck loading areas in the Stonestown facility. The J. Magnin Store at the north end of the center has a separate truck loading area which is served from the internal parking lot. An on-street truck loading area (a yellow curb zone) is located in front of the Bank of America along Winston Drive. Truck loading/unloading activity at this zone is used primarily by the Bank.

Recent or Planned Improvements

The City of San Francisco in late 1974 instituted dual left-turn lanes for northbound traffic on 19th Avenue to enter the Stonestown Shopping Center. This improvement has increased the capacity of the intersection and reduced delays for traffic entering the shopping center. Another recent change was the implementation of a four-way stop at Buckingham Way and Winston Drive.

The Traffic Engineering Division does not anticipate any roadway changes in the vicinity of Stonestown Shopping Center and the transit change that has been discussed above involves the implementation of one new transit line (line 70).

2.

PROPOSED ACTIONS

The expansion of Stonestown Shopping Center proposes to add a Bullock's Department Store and an expansion of existing mall shops totalling approximately 180,000 square feet of gross leasable area. The new store would be located south of Winston Drive in the location of the existing vacant Liberty House building. The new building would represent an expansion of the existing building and could be different from the existing configuration in that a pedestrian overpass over Winston Drive is proposed with escalators connecting the overpass to the Stonestown Mall itself.

In addition to the new store, a parking garage would be added to the development. The garage would be located between Buckingham Way and Winston Drive immediately west of the new department store. As presently designed, the garage would contain 670 parking spaces (if all spaces were designed for full-sized cars). The new garage and the new store would replace an existing building and an existing parking lot. The parking lot now accommodates 340 spaces so the net increase in parking is 330 spaces.

The garage is proposed as a sloping floor garage with four parking modules running in an east-west direction. The garage would have six levels -- the first five levels would each have four modules of parking and the sixth (top) level would have two parking bays in the center of the structure. The garage levels would be connected to the department store at all three retail levels of the store.

The access plan for the parking garage calls for one entrance/exit on Buckingham Way at the lowest garage level. Two access points would be provided from Winston Drive; one at the east end of the garage and one at the west end of the garage. Because of the difference in elevation on Winston Drive itself, these two entrances can be provided at different floor levels of the garage to give better distribution within the parking facility.

The proposed changes in the shopping center also call for the enclosure of the mall between the Emporium Store and the proposed Bullock's Store. This enclosed mall would then run the entire length of the center in a north-south direction from Emporium to Winston Drive. The intent of

the proposed design is to carry the feeling of the enclosed mall over Winston Drive itself by merchandising a second-level pedestrian overpass. This merchandised overpass would connect directly into the second level of Bullock's and it would be connected to the new enclosed mall by escalators.

3.

ENVIRONMENTAL IMPACTS

The addition of retail facilities would increase local traffic and transportation activity.

The increase in trip generation would be almost exclusively the result of the addition of new retail space rather than the enclosing of the open-air mall. Research by the California Department of Transportation in the Bay Area does not suggest any substantial trip generation differences between enclosed and open-air malls of similar size. Barton-Aschman Associates trip generation research agrees with this conclusion and therefore the enclosing of the mall should not be a factor that directly increases the number of trips to/from the center.

Automobile Generation

Barton-Aschman research studies of previous shopping center expansions indicates that expansion floor area would generate traffic at only 45 to 60% of the existing shopping center generation rate. For example, if the center is now producing or attracting 1.0 trips/thousand square feet of floor area, an expansion would add 0.6 trips per thousand square feet of expansion. Likewise, the parking demand per floor area should also be calculated on the reduced figure.[19]

These reductions are used because a new store added to an existing center would not generate totally new customers, but rather would serve some customers already shopping at stores within the center.

Assuming that the new department store would generate traffic at the rate of 60% of the existing generation rate, a 180,000 square foot store would generate an additional 3,950 trips per day to/from Stonestown Shopping Center on a Design Day. On a Peak Day the expansion would generate 4850 trips. Of the Design Day total, 370 new trips will be generated

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[19] Before and after expansion traffic counts of Old Orchard Shopping Center in Skokie, Illinois (1960) and Southdale Shopping Center in Minneapolis, Minnesota (1965) and Fairlane Shopping Center in Dearborn, Michigan (1976).

in the 4:30 - 5:30 p.m. period (170 trips inbound and 200 trips outbound). These additional trips in the peak period have been assigned to the peak hour traffic demands shown in Figure 2, p 124, and capacity calculations have been conducted to identify and quantify the impacts of this additional traffic.

The addition of a new department store and mall shops could change the directions of approach to the center because the new store could draw from a larger or slightly different trade area. However, since the 3,950 new trips represent 15% of the 25,200 existing daily trips, the existing direction of approach (Figure 1, p. 120) is not likely to change significantly.

The new store could shift the travel within the center by increasing activity in the immediate vicinity of the new store. For the purposes of the new traffic assignment, it was assumed that a greater proportion of southbound trips on Nineteenth Avenue would continue southerly to enter the center along Winston Drive rather than using the Eucalyptus Drive entrance as they presently do.

Capacity Calculations

The increase in traffic associated with the new department store would impact the three signalized locations closest to the shopping center. Capacity calculations for existing conditions (before expansion), expanded shopping center conditions and future conditions were conducted for these three locations. Table 7 shows the results of the capacity calculations for existing and expansion conditions. The important comparison to be made in Table 7 is the Level of Service before and after expansion. (See Table 8, p 142, for description of Level of Service ratings.)

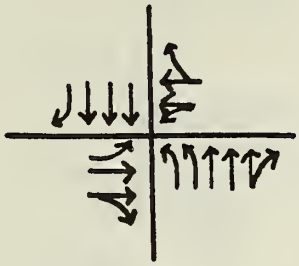
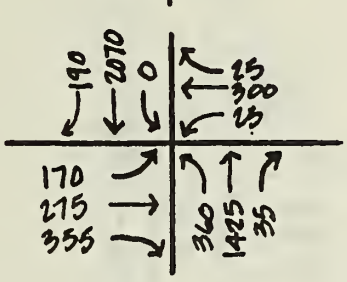
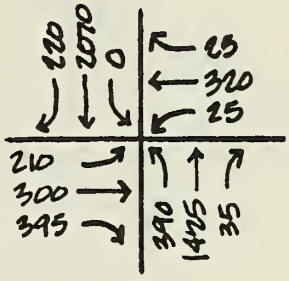
In the case of Nineteenth Avenue-Eucalyptus Drive and Lake Merced Boulevard-Winston Drive intersections, the Level of Service of the intersection does not change before and after the shopping center expansion. The Level of Service at Winston Drive -- Nineteenth Avenue did deteriorate slightly from Level of Service C to an operation that would operate between Levels of Service C and D after expansion.

In order to evaluate the longer-range impact of the expansion, traffic growth in the vicinity of Stonestown Shopping Center was projected to 1985 and the capacity calculations were performed on 1985 conditions. Table 9 shows a summary of these calculations and allows a comparison of future conditions to existing and expansion conditions. If traffic in the vicinity of Stonestown continues to grow at its historical rate of 1-1.5% per year, the Levels of Service of all three intersections will deteriorate slightly. In no case however does the Level of Service ever become worse than Level of Service D.

Service Vehicles

Data has been collected at Bullock's three stores in the Bay Area

Table 7
BEFORE AND AFTER CAPACITY CALCULATIONS--DESIGN DAY CONDITIONS

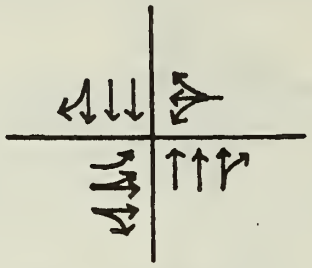
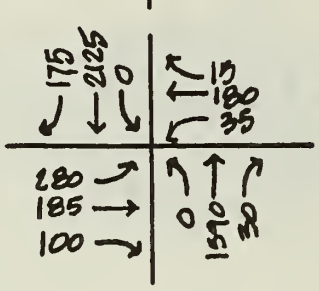
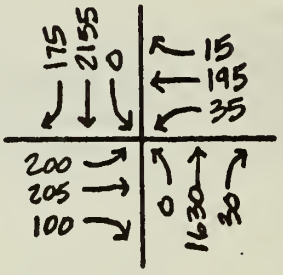
Intersection	Winston Drive-Nineteenth Avenue	
Condition	Existing	After Expansion
Cross Section		Same
4:30-5:30 p.m. Traffic		

Signal Phasing	Green Time Required* (%)	
① ↖	18	20
② ↓↑	52	52
③	23	25
AMBER	08	08
Total G/C **	101%	105%
Level of Service	C	C/D

*Calculated at Level of Service C.

$$**\frac{G}{C} = \frac{\text{Green Time Required}}{\text{Cycle Length}}$$

Table 7
BEFORE AND AFTER CAPACITY CALCULATIONS--DESIGN DAY CONDITIONS

Intersection	Eucalyptus Drive-Nineteenth Avenue	
Condition	Existing	After Expansion
Cross Section		Same
4:30-5:30 p.m. Traffic		

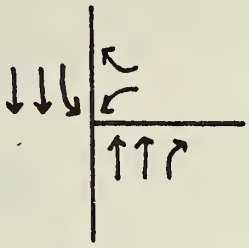
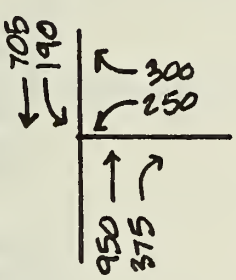
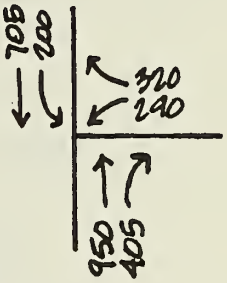
Signal Phasing	Green Time Required* (%)	
①	58	59
②	20	22
AMBER	08	08
Total G/C**	86%	89%
Level of Service	A/B	A/B

*Calculated at Level of Service C.

**$\frac{G}{C} = \frac{\text{Green Time Required}}{\text{Cycle Length}}$

Table 7
BEFORE AND AFTER CAPACITY CALCULATIONS--DESIGN DAY CONDITIONS

Intersection : Winston Drive-Lake Merced Boulevard

Condition	Existing	After Expansion
Cross Section		Same
4:30-5:30 p.m. Traffic		

Signal Phasing	Green Time Required* (%)	
① ↓↱	34	34
② ↓↳↑	17	18
③ ↖↱	23	26
AMBER	08	08
Total G/C **	82%	86%
Level of Service	A/B	A/B

*Calculated at Level of Service C.

**$\frac{G}{C} = \frac{\text{Green Time Required}}{\text{Cycle Length}}$

Table 8
INTERSECTION LEVEL OF SERVICE DEFINITIONS

Level of Service	Interpretation
A,B	Uncongested operations; all queues clear in a single signal cycle.
C	Light congestion; occassional back-ups on critical approaches.
D	Significant congestion on critical approaches, but intersection functional. Cars required to wait through more than one cycle during short peaks. No long standing queues formed.
E	Severe congestion with some long standing queues on crigical approaches. Blockage of intersection may occur if traffic signal does not provide for protected turning movements. Traffic queue may block nearby intersection(s) upstream of critical approach(es).
F	Total breakdown, stop-and-go operation.

(Stanford, Cupertino and Walnut Creek) in reference to truck generation. The highest truck generation now occurs at the Stanford store where approximately 12 trucks per day service the store (this represents 24 truck-trips per day). Since the Stanford Store is similarly sized to the proposed Stonestown store and since both stores will be served by the same warehouses and dispatchers, the service vehicle generation rates should also be similar.

The truck generation due to the expansion would have two components -- Bullocks and the new mall shops. If the 8-10,000 square feet of mall shops generate truck trips at the rate of 0.3 trips/1000 square feet of GLA, then approximately 3-4 truck trips per day will be added due to the new mall shops.

The total of new truck generation would be as follows:

Type of Truck	Trips/Day
Semi	2
Single Unit	12
Panel, Pickup	16
	30

Although these trips could be spread out over the entire day as is suggested in Table 6, p 133, Bullock's practice in its other stores is to accommodate its larger trucks before 10:00 a.m.

The loading dock for the new Bullock's is proposed to be an off-street facility located off Buckingham Way in the southwest corner of the store. The loading dock would share access with the parking garage entrance/exit thus reducing the number of curb cuts along Buckingham Way. All Bullocks loading/unloading would be accomplished in this off-street facility.

The service to the new mall shops would be accomplished from the existing truck tunnel. Sufficient capacity is available in the tunnel to accommodate this increase in activity.

Pedestrians

The expansion of the shopping center might result in a increase in the number of pedestrian trips to/from the center because nearby residents might take the opportunity to visit the center more often with the increase in merchandise available. The directional flows of pedestrian traffic are likely to remain the same; i.e., predominant flows to/from the north and south. The increase in traffic that would result from the expansion would not likely be enough to discourage or prohibit pedestrian approach to the center.

A pedestrian/vehicular conflict point in the shopping center would continue to be the pedestrian mall crossing along Winston Drive west of

Table 9
CAPACITY SUMMARY

Intersection	Intersection Level of Service Operation		
	Existing (1976)	Expansion (1976)	Future (1985)*
Nineteenth Avenue-Eucalyptus Drive	A/B	A/B	B/C
Nineteenth Avenue-Winston Drive	C	C/D	D
Lake Merced Boulevard-Winston Drive	A/B	A/B	B

*Future capacity calculations assume that the shopping center expansion has been implemented.

NOTE: The only other addition to Stonestown in the planning stages is a 5-9,000 square foot resturant. This type of facility would generate 150-275 new trips per day to/from the center. This level of traffic would not change the Levels of Service above.

Twentieth Avenue. Counts taken on March 17, 1976 showed that the crossing demand at this point was 650 pedestrians per hour during the mid-afternoon peak shopping periods and approximately 310 pedestrians per hour during the 4:30 - 5:30 p.m. traffic peak hour.

If the new department store south of Winston generated as much pedestrian traffic as the Emporium Mall Entrance, another 970 pedestrians per hour would be added to this crosswalk. Thus a total crossing demand of 1620 pedestrians per hour during the mid-day and 1280 pedestrians per hour during the evening peak traffic hour could occur after the expansion of the shopping center.

A pedestrian crossing demand of 1300-1600 pedestrians per hour would impact traffic flow through the shopping center. A pedestrian/vehicular safety problem could occur if the pedestrian crossing continued to operate without any controls.

There appear to be four alternatives for reducing the potential congestion and safety problems at this location:

1. Merchandised pedestrian overpass -- This alternative would extend the store over Winston Drive and connect the store to the existing mall by way of up and down escalators. The present proposal calls for the department store to merchandise this pedestrian overpass so that the pedestrian/customer will feel like he/she is actually in the store as soon as they have reached the top of the escalator. It is the department store and the developer's contention that the merchandising of this overpass should significantly enhance the attractiveness of that route for pedestrians. As presently proposed, the merchandised overpass would be 93 feet wide.

2. Pedestrian overpass -- This alternative would connect the existing mall to the second level of the proposed department store by way of a pedestrian overpass over Winston Drive. The overpass under this alternate would not be merchandised. A non-merchandised pedestrian overpass would be approximately 20 feet in width.

3. Pedestrian traffic signal -- This alternate would add a pedestrian traffic signal to the crosswalk in order to alternately assign right-of-way to pedestrians and then to vehicles along Winston Drive.

4. Uncontrolled pedestrian crosswalk -- This alternate would be a continuation of the existing uncontrolled pedestrian crosswalk between the existing mall and the new department store. If the merchandised overpass could attract most or all of the trips between the new department store and the existing mall, the pedestrian volumes crossing at street level could continue to cross safely at an uncontrolled crosswalk. The resulting conditions would not be any worse than they are today.

The project sponsor does not feel that a pedestrian overpass that was not merchandised could attract as many pedestrian trips as a merchandised overpass. Therefore it could be necessary to install some type of traffic control at grade level even if a non-merchandised pedestrian overpass were implemented.

The combination of pedestrian volumes projected and the automobile volumes expected indicate that the at-grade pedestrian crossing could be made to operate satisfactorily with a pedestrian traffic signal. Winston Drive is 60 feet wide in the vicinity of the mall and therefore 15 seconds is the minimum crossing time for pedestrians to cross the street. If signal timing were implemented to give pedestrians a 5-10 second "Walk" indication plus 15 seconds of flashing "Don't Walk" indications, all 1620 expected pedestrians per hour could be adequately accommodated.

One of the factors that is considered in the design of a pedestrian crosswalk is that if the total cycle length is too long, pedestrians would begin to disregard the "Don't Walk" signal and cross against the light. If a cycle length of 60 seconds is utilized, with approximately 40 seconds for vehicular traffic and 20 seconds for pedestrian traffic, capacity calculations indicate that both vehicular and pedestrian demands can be adequately accommodated.

If 60% of the cycle length would be available for automobile traffic and 30% for pedestrian crossings (10% of the cycle would be used by amber clearance phases) then the east-west capacity of the street (at Level of Service C) would be approximately 700 vehicles per hour per lane. The maximum projected east-west demand after expansion is approximately 600 vehicles in the eastbound direction. Therefore a signal cycle which allocated 60% of the cycle length to east-west traffic could adequately accommodate the eastbound travel demand in one lane of traffic. However, the queue length that would result from all eastbound Winston Drive traffic having to line up in a single lane indicates that traffic could occasionally back up through the intersection of Twentieth Avenue and Winston Drive. Therefore, in order to make the pedestrian signal function addequately without affecting the operation of adjacent intersections, two approach lanes in each direction would be required.

As was mentioned earlier in this section, a continuation of the existing uncontrolled pedestrian crosswalk would not yield satisfactory results. The increase in traffic congestion that would occur and the increased potential for pedestrian accidents would eliminate this alternate as an acceptable solution.

Transit Impacts

It is anticipated that the expanded center would attract an increased number of transit riders to/from the center. The buses that now serve the center are not filled to capacity when they reach the center although many of the routes are heavier closer to the CBD.

Since this location is not a major loading point for the buses, transit ridership data by line is not available. It is therefore impossible to estimate precisley how many transit patrons would be added to each line, but observations during the day-long 1973 counts indicated that capacity was available on all lines serving the center.

Other Transportation Impacts

Shifts in Travel Patterns -- A new parking garage in the southern portion of the shopping center could modify the travel patterns to/from and within the center. The parking supply in the center after the expansion would become more balanced so more of the automobile trips would use the roadways in the southern portion of the center. Since most of the congestion problems now occur along Twentieth Avenue in the northern portion of the center, this shift toward the south should help alleviate problem conditions in the most congested areas of the site.

Parking -- Peak parking data indicates that 2,000 to 2,200 of the 2,400 prime customer spaces in Stonestown are now used on peak days of the year. An increase of 330 parking spaces therefore to accommodate the new department store should result in a total parking supply that is adequate to meet peak parking conditions.

In shopping centers an attempt is made to distribute parking supply according to the demand within the center. Acceptable walking distances within a shopping center parking lot are normally considered to be approximately 200-250 feet. Thus as much prime customer parking as possible should be located within this radius of the new store. The existing unused parking spaces on peak days lies in the far northwest and southwest corners of the site -- more than 250 feet away from the existing stores.

As was mentioned earlier, a parking ratio of 5.0 spaces/1,000 square feet of gross leasable area is normally considered standard. In the case of Stonestown, however, the higher transit/pedestrian modes of arrival coupled with the lower expansion traffic generation rates indicate that a 4.0 spaces/1,000 square feet GLA would be an appropriate parking ratio for the new store. Thus the new store should be served by approximately 720 spaces and as many of these as possible should be located within 250 feet of the new store. The new store would be served by the 670 car structure and approximately 125 surface spaces (within 250 feet of Bullocks) south of the market.

The parking plans prepared for the expansion are detailed enough to yield a total capacity count but no breakdown has as yet been made as to compact car allocation or handicap space locations. A total of 670 spaces could be provided if all spaces were striped as full-size spaces.

A draft of the December, 1975 report Parking in San Francisco was supplied by the San Francisco Planning Department. In the section of this report discussing parking in neighborhood shopping districts (page 2) the following two passages appear:

"Objective 2. Use new and existing parking facilities as efficiently as possible in order to conserve scarce land resources.

"Policy 1. Reserve a portion of spaces in parking lots and garages for compact automobiles."

The report states that approximately one-half of the automobile sales today are in the compact car category and therefore the Planning Department and the City Planning Commission are now considering requiring that a minimum of 40% of the total spaces be designed and designated as compact spaces.

The Traffic Engineering Division, on the other hand, would allow a maximum of 20% of the total spaces to be designed as compact spaces. (The Traffic Engineering Department defines a "standard" space as an 8.5 foot wide stall whereas a "compact" space can be 8.0 feet wide.)

Thus the new parking garage could have as many as 130 compact spaces under present limitations of the Department of Public Works (Traffic Engineering) or it may be required to provide at least 260 compact spaces as a result of changes required by the Planning Department.

A survey was completed by Barton-Aschman Associates in March, 1976 at a new shopping center in Cupertino, California. This center has a compact car ratio of 35% and thus it is comparable to the Planning Department's criteria. The survey showed that over one-half of the spaces designated as compact spaces were actually filled with full-sized cars and many of these full-sized cars took two compact spaces in order to park. The provision of 35-40% compact spaces is unrealistic without an extensive enforcement program that includes ticketing and possibly even towing. This type of program is not implementable in a privately-owned, customer-oriented parking structure.

The typical handicap parking standard is 5 spaces per 1,000 spaces of parking. Thus, this new garage should provide at least 3 handicapped spaces and these should be located near the store entrances.

Buckingham Way Travel Increase -- Buckingham Way between the new parking garage easterly to Nineteenth Avenue is likely to experience an increase in travel demand because of the entrance/exit from Buckingham Way serving about 1/3 of the 670 car garage. Because of left-turn prohibitions to/from Nineteenth Avenue, the Buckingham Way garage access point is likely to be used more as an exit than as an entrance.

Increased Curb Drop-Off Facility -- With the addition of a new department store along Winston Drive, the potential for curb activity in terms of customer pick-up and drop-off is increased. This activity could have a detrimental effect on traffic flow along Winston Drive if pick-up and drop-off activity occurred adjacent to parked cars thereby blocking a lane of moving traffic.

5.

MITIGATING MEASURES

In order to improve the flow of traffic within and through the center and improve pedestrian/vehicular safety within the center, the following mitigating measures are offered (existing and proposed conditions are illustrated in Figures 4 and 5, p151-2 for comparison purposes):

1. Eliminate curb parking from a point 100 feet west of the west garage entrance easterly to Twentieth Avenue along Winston Drive. This prohibition would result in the elimination of 21 spaces along the north curb and 20 spaces along the south curb of Winston Drive. This would mitigate potential congestion caused by pick-up and drop-off and it will also allow for four lanes of through traffic on Winston Drive.

2. Restripe Winston Drive to provide six lanes adjacent to the parking garage. Two lanes in each direction plus a left turn lane in each direction should be provided. The left-turn lane should serve traffic entering the parking garage to the south or the parking lot to the north. This would mitigate possible backups at garage entrances.

3. Restripe Winston Drive between the new parking garage and Twentieth Avenue to provide a five lane cross-section. The five lane cross-section should provide two through lanes in each direction plus a left-turn lane at the easterly garage entrance and at Twentieth Avenue. This striping plan would not only improve traffic flow but adjacent to the mall the center lane would give pedestrians a safety refuge in the middle of Winston Drive.

4. Install four-way stop signs at Twentieth Avenue and Winston Drive. At the present time this is a very confusing and congested location because cars and trucks trying to enter Winston Drive from Twentieth Avenue must try and cross very high volumes of traffic that are paying more attention to pedestrians than they are to cross traffic. This four-way stop would also protect the pedestrians trying to cross this location.

5. Implement a merchandised pedestrian overpass over Winston Drive at the mall crossing to avoid pedestrian/vehicular conflicts.

The above four recommendations all involve city streets and therefore the approval and authorization of the City of San Francisco is needed to implement these mitigating measures.

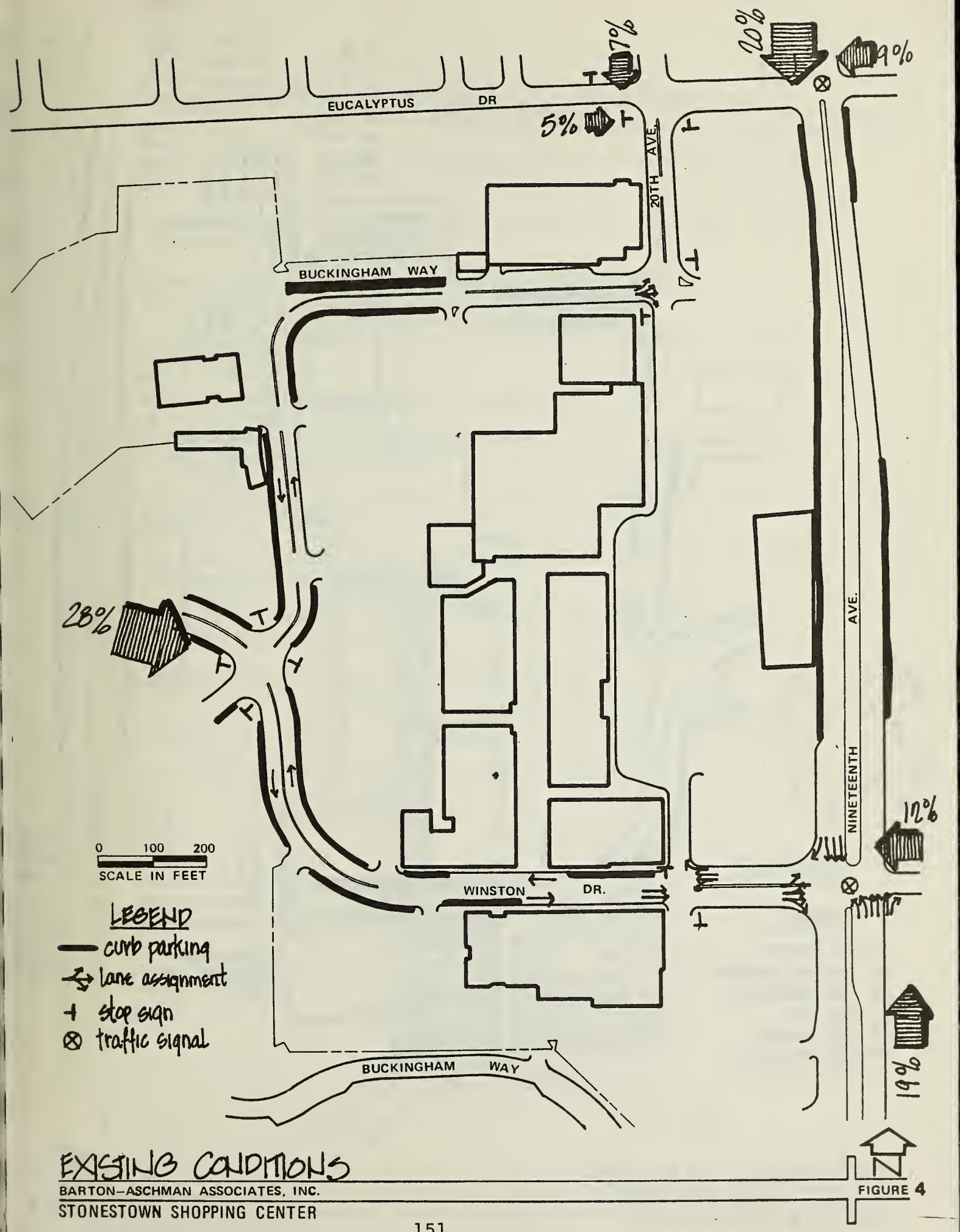
Many of the streets in Stonestown Shopping Center are private streets and therefore the following mitigating measures would be implemented by the developer without the need for city approvals:

1. Increase the enforcement of no parking zones along Buckingham Way from Twentieth Avenue west to the first major parking entrance.

2. Install four-way stop signs at Buckingham Way and Twentieth Avenue.

3. Prohibit the U-turn in the median break at Twentieth Avenue between Eucalyptus Drive and Buckingham Way.

4. If increased travel on the easterly portion of Buckingham Way becomes a problem because of the parking garage entrance, the lower floors of the parking garage can be designated for employee parking so that the turn-over of spaces that would be served by Buckingham Way would be reduced. On peak days of the year when customer spaces near the store are desirable, this mitigating measure would be ineffective because all employees would be asked to park in the northwest portion of the site.

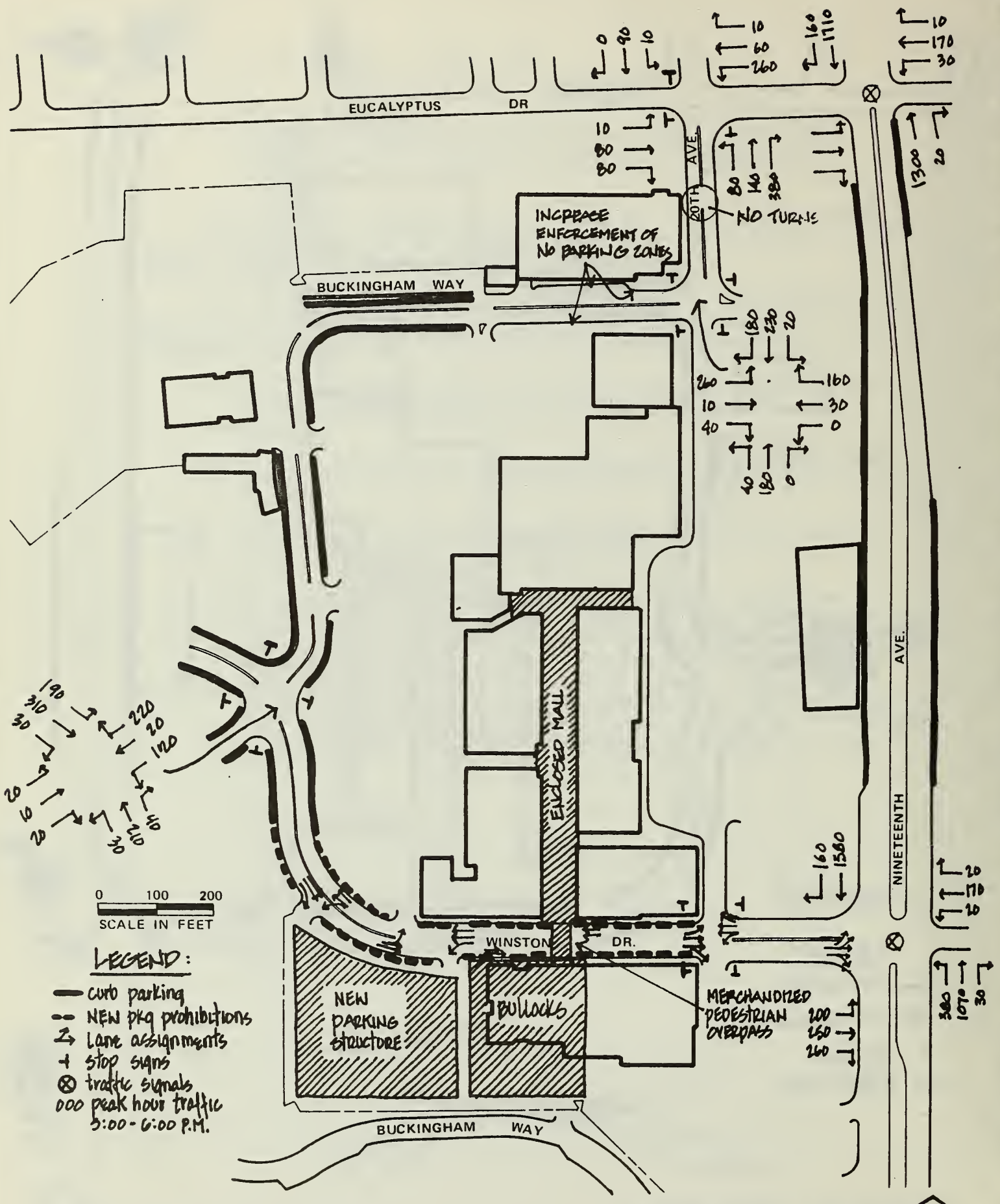


EXISTING CONDITIONS

BARTON–ASCHMAN ASSOCIATES, INC.

FIGURE 4

STONESTOWN SHOPPING CENTER



MITIGATING MEASURES

BARTON–ASCHMAN ASSOCIATES, INC.

STONESTOWN SHOPPING CENTER

FIGURE 5

PERSONS CONTACTED DURING THE COURSE OF THE TRAFFIC IMPACT STUDY

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8. Mark Rand, Assistant Traffic Engineer, City of San Francisco, Traffic Engineering Division
9. Scott Shoaf, Associate Traffic Engineer, City of San Francisco, Traffic Engineering Division
10. Vernon Smith, San Francisco Municipal Railway
11. Walter Lewis, Transit Schedule Supervisor, San Francisco Municipal Railway
12. Arthur Schumacher, Stonestown Development Company